Pre-Design Investigation Report

Remedial Design

Area 9/10

Southeast Rockford Groundwater Contamination Superfund Site

Rockford, Illinois

CERCLIS ID No. ILD981000417

April 28, 2006

Prepared for:

Hamilton Sundstrand Corporation
4747 Harrison Avenue
Rockford, Illinois 61125

Submitted by:

SECOR

SECOR International Incorporated
446 Eisenhower Lane North
Lombard, Illinois 60148

SECOR

SECOR
INTERNATIONAL
INCORPORATED

www.secor.com
446 Eisenhower Lane North
Lombard, Illinois 60148
(630) 792-1680 TEL
(630) 792-1691 FAX

April 28, 2005

Mr. Russell Hart
United States Environmental Protection Agency
Region V
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

RE: Pre-Design Investigation Report
Area 9/10, Remedial Design
Southeast Rockford Groundwater Contamination Superfund Site
Rockford, Illinois
CERLIS ID: ILD981000417

Dear Mr. Hart:

On behalf of Hamilton Sundstrand Corporation, enclosed please find a copy of the "Pre-Design Investigation Report" prepared by SECOR International Incorporated (SECOR). This report provides a summary of the additional investigation activities completed in support of the Remedial Design being undertaken by Hamilton Sundstrand in accordance with the Administrative Order on Consent (AOC) between Hamilton Sundstrand and the United States Environmental Protection Agency (USEPA). An electronic copy of this report is also being provided per the AOC.

If you have any questions, please do not hesitate to call.

Sincerely,
SECOR International Incorporated

David M. Curnock
Principal Scientist

enclosure: Preliminary Design Investigation Report, April 28, 2006

cc: Mr. Scott Moyer, HS/UTC
Ms. Kathleen McFadden, UTC
Mr. Thomas Turner, USEPA
Mr. Thomas Williams, IEPA
Mr. Terry Ayers, IEPA

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

1.0 INTRODUCTION

This report documents the field activities completed and presents the results of the Pre-Design Investigation (PDI) associated with the Remedial Design for the Area 9/10 portion of the Southeast Rockford Groundwater Contamination Superfund Site (SER site, CERCLIS ID No. ILD981000417) located in the City of Rockford, Illinois (Figure 1.1).

Hamilton Sundstrand Corporation (HS) entered into an Administrative Order on Consent (AOC) with the United States Environmental Protection Agency (USEPA) on January 13, 2003 for the completion of a Remedial Design for source control for Area 9/10. As part of the statement of work associated with the AOC a Pre-Design Investigation was outlined to fill in the data gaps identified in the source control remedial investigation, feasibility study, and Record of Decision (ROD).

The term "Area" shall refer to Area 9/10, an industrial area, located within the City of Rockford, Winnebago County, Illinois. The Area is bounded by Eleventh Street on the east, Twenty-third Avenue on the north, Harrison Avenue on the south, and Sixth Street on the west. Hamilton Sundstrand Corporation was the only potentially responsible party identified by the Illinois Environmental Protection Agency (IEPA) for Area 9/10. The Hamilton Sundstrand (HS) Plant #1 facility is located within Area 9/10. The address of the facility is 2421 Eleventh Street. The HS Plant #1 Site (the "Site") features are shown on Figure 1.2. The PDI was completed on behalf of HS by SECOR International Incorporated (SECOR) located in Lombard, Illinois.

The SER site consists of three Operable Units each with a corresponding ROD. Operable Unit One (Drinking Water Operable Unit) provided some area residents with a safe drinking water supply by connecting 283 homes to the city water supply. Operable Unit Two (Groundwater Operable Unit) addressed the area-wide groundwater contamination. An additional 264 homes were connected to the city water supply and a remedial investigation was conducted to characterize the nature and extent of the groundwater contamination and to provide information on source areas responsible for contamination. This operable unit identified four source areas (Areas 4, 7, 9/10, and 11). Operable Unit Three (Source Control Operable Unit) began as a State lead action to select remedies for each of the source areas.

Based on the field investigation activities conducted by the IEPA at each of the areas, cleanup alternatives and selected remedies were presented in the May 2002 Source Control Remedies ROD issued by the USEPA and the IEPA.

The selected source control remedies for Area 9/10 are soil vapor extraction with treatment of vapors by granular activated carbon for soil and institutional controls and enhanced air sparging for leachate. The term leachate is defined as water that passed through waste and picked up contaminants present in the waste. There is also a contingent remedy for leachate/groundwater pump and treat, if necessary, based on further investigation.

The Source Control Operable Unit remedies for Area 9/10 were predominantly based on groundwater sample results from a single well (MW201) in July 1996 identified as part of the Source Control Operable Unit Three remedial investigation (RI). This well was destroyed soon after the cited sampling event and was replaced with a well of similar construction within 50 feet of the original MW201. Laboratory analytical results from subsequent groundwater samples collected quarterly in 2000 and semi-annually in 2001 did not reproduce the concentrations of constituents of concern (COCs) in the original data from 1996. These results indicated concentrations of chlorinated volatile organic compounds were one to four orders of magnitude lower than the initial data. As the original data was not reproducible it was agreed that additional investigation, which was proposed as the Pre-Design Investigation, would be conducted prior to the initiation of remedial design in an attempt to confirm a location of a source area at Area 9/10. This document provides a summary of the PDI efforts.

The PDI was conducted in accordance with the Remedial Design Work Plan (of which Section 4.0 specifically outlines the PDI statement of work) and the Field Sampling Plan (Appendix A of the RD work Plan), unless otherwise noted.

1.1 INVESTIGATION OBJECTIVES

The objective of the PDI effort was to collect and evaluate additional information to fill data gaps identified with regard to the presence and horizontal and vertical extent of COCs associated with the source control remedial investigation completed by Camp Dresser & McKee (CDM) on behalf of the IEPA from 1996 through 2002. The investigation and

subsequent remedy selection was based on a single groundwater sample location (MW201). The PDI was completed to supplement the existing Area information to facilitate the preparation of a Remedial Design package for the future performance of a Remedial Action (RA) to fulfill the source control goals of the third ROD established for Area 9/10 and to provide necessary data to meet HS responsibilities under the Resource Conservation and Recovery Act (RCRA) for the outside container storage area (OSA).

The third operable unit (also known as the Source Control Operable Unit ROD) states that source materials (volatile organic compounds [VOCs]) exist within Area 9/10 that requires remediation for the groundwater operable unit (second ROD) to be effective in the long term (205 years). These source materials are to be addressed primarily through the application of two remedial technologies: 1) soil vapor extraction and 2) enhanced air sparging. The goal of the RD effort is to develop a remedial design to mitigate source materials that may otherwise continue to degrade site-wide groundwater, and potentially not meet the goals of the second ROD, utilizing the selected remedial technologies.

1.2 CONSTITUENTS OF CONCERN

The Remedial Investigation (RI) was completed by CDM under contract to the IEPA. The Final RI Report, dated July 25, 2000, identified COCs in soil at concentrations above the Preliminary Remediation Goals (PRGs) specified in the third ROD, which were based on the 35 Illinois Administrative Code (IAC) Part 742 Tiered Approach to Corrective Action Objectives (TACO). The soil and groundwater samples were analyzed for VOCs, semi-volatile organic compounds (SVOCs), pesticides, and polychlorinated biphenyls (PCBs).

The soil COCs for Area 9/10 were identified as: 1,1-dichloroethene (1,1-DCE); methylene chloride (MC) (possible laboratory artifact); tetrachloroethene (PCE); 1,1,1-trichloroethane (1,1,1 TCA), 1,1,2-trichloroethane (1,1,2 TCA); and trichloroethene (TCE) as agreed upon with USEPA and IEPA in the RD work plan. It was also agreed that the PDI would include an evaluation for the potential presence of jet fuel in soil.

The RI also identified COCs in groundwater above PRGs. The PRGs were based on 35 IAC Part 620 Groundwater Quality, 35 IAC Part 742 TACO Class I groundwater, and USEPA maximum contaminant level (MCL) regulations. The groundwater COCs were identified as

1,1-DCE; 1,2-dichloroethane (1,2-DCA); 1,2-dichloroethene (1,2-DCE); ethylbenzene; PCE; 1,1,1 TCA; 1,1,2 TCA; TCE; and vinyl chloride (VC) as agreed upon with USEPA and IEPA in the RD work plan. It was also agreed that the PDI would include an evaluation for the potential presence of jet fuel in groundwater.

1.3 RECONNAISSANCE AND FIELD MOBILIZATION ACTIVITIES

Site reconnaissance and other data evaluation were used in the selection of locations for intrusive data collection activities (i.e. soil borings and monitoring wells). SECOR conducted supplemental surveys at Area 9/10 which included locating property boundaries, negotiating site access for off-site properties, identifying utility locations and rights-of-way, and determining historical operation activities. Additional details regarding the reconnaissance and field mobilization activities are provided below.

Offsite Property Access

SECOR obtained access to 2525 11th Street (commonly known as the former Nylint property) located south of the Site along 11th Street for investigation activities. Five soil borings (SMW-7, SMW-16, SMW-16A, SMW-17, and SMW-18) were advanced at this property with four of the borings being converted into permanent groundwater monitoring wells (SMW-7, SMW-16A, SMW-17, and SMW-18). A separate letter of authorization was provided by IEPA to physically access well MW127 located on the 2525 11th Street property.

Access was also obtained for the Rockford Products Corporation parking lot located south of the Site along 9th Street. Four soil borings (SMW-6, SMW-9, SMW-10, and S15) were advanced at this property with three of the borings converted into permanent groundwater monitoring wells (SMW-6, SMW-9, and SMW-10). The IEPA RI monitoring well MW201 is also located on this property.

SECOR also secured access to four groundwater monitoring wells (SMW-3 and MW201 through MW203) owned by the City of Rockford (the City). SMW-3 is located in the right-of-way (ROW) on 23rd Avenue near the corner of 11th Street. MW201 is located in the Rockford Products parking lot along 9th Street. Monitoring wells MW202 and MW203 are located at the Mobility Connection at 2400 11th Street in a grass area and parking lot,

respectively. The City also allowed the installation of two monitoring wells (SMW-1 and SMW-2) in the City ROW on the south side of 23rd Avenue.

Identification of Utility Locations

Multiple resources were used to identify the locations of utilities at the Site and surrounding properties. SECOR conducted interviews with various HS personnel pertaining to current and former utility and underground storage tank (UST) locations. The City of Rockford's Public Works Department provided locations of city owned utilities. Joint Utility Locating Information for Excavators (JULIE) was also contacted to locate underground utilities owned by various entities in each of the investigation areas. SECOR also contracted with two private utility locating companies for public and private underground clearance work.

Historical Facility Operations Review

Historic Sanborn Fire Insurance Maps were obtained from Environmental Data Resources (EDR), the copyright owner of the Sanborn map collection. Maps covering the Site were available for the following years: 1913, 1950, 1951, 1957, 1963, and 1966. Copies of these maps are provided in Appendix A. The maps show various building expansions of the HS Plant #1 facility over the years. The expansions are generally additions to the existing structure on the eastern portion of the property along 11th Street westward.

Aerial photographs were obtained from the Winnebago County Regional Planning and Development department for Spring 1978 and April 1989. A comparison of the 1978 aerial photograph and the 1966 Sanborn map indicates that additional building expansion took place. By 1978 the current building footprint was established which extends from 9th Street to 11th Street.

A current aerial photograph for the Site, dated April 27, 2001, was obtained from Winnebago County Geographic Information Systems (WinGIS). Copies of the aerial photographs of the Site from 1978, 1989, and 2001 are provided in Appendix B.

Investigation Logistics

Part of the preparation for the field sampling activities included placement of a mobile trailer onsite to limit the interference with the ongoing facility operations. The trailer was located in the HS employee parking lot along 9th Street near the Outside Storage Container area and was used as an office and provided a staging area and storage location for equipment and supplies. Sanitary facilities were also leased and placed near the mobile office trailer.

1.4 INVESTIGATION SUMMARY

The investigation consisted of: 1) geophysical testing; 2) field sampling activities including soil borings and monitoring well installation, and associated sampling; and 3) boring and well location survey. Additional detail regarding each of these activities is provided below.

Geophysical Survey

GZA GeoEnvironmental of Grand Rapids, Michigan (GZA) conducted ground penetrating radar (GPR) and electromagnetic (EM) surveys on the Rockford Products parking lot located east of 9th Street and south of 23rd Avenue on February 4, 2004. The survey was completed to identify underground structures and potential underground storage tank(s) in this area.

The surveys were conducted using a Geonics EM-31 MK2 Terrain Conductivity Meter and Geophysical Survey Systems, Inc. (GSSI) SIR-2000 GPR system with a 400 MHz antenna to evaluate the shallow subsurface features to a maximum attainable depth of approximately 18 feet and 9 feet, respectively.

The extent of the survey area measured 150 feet by 150 feet. EM and GPR profile lines were conducted in both east/west and north/south orientations at 10-feet intervals throughout the survey area. The origin point was located approximately 10 feet east of the 9th Street and 150 feet south of a chain link fence which was the northern boundary of the survey. The location of the survey area is shown on Figure 1.3.

Field Sampling Activities

The field sampling activities included completion of soil borings, installation of monitoring wells, and the collection of soil and groundwater samples. Soil borings were advanced to 1) identify the presence of COCs in soil both horizontally and vertically to the water table in the OSA, 2) fill data gaps around the Plant #1 facility, and 3) confirm the geologic conditions at various depths within the OSA and Plant #1 facility. Approximately half of the soil borings were completed as monitoring wells to determine the nature and extent of groundwater COCs beneath the study area. Seven existing wells (SMW-3, MW-3FGA, MW-7FGA, MW127, MW201 through MW203) are also included in the groundwater monitoring network that was established. The initial drilling and well installation activities were completed by Mid-America Drilling Corporation located in Elburn, Illinois and conducted from October 21, 2003 to November 19, 2003. Drilling activities that occurred from March 4, 2004 through March 24, 2004 were conducted by Transhield Underground Services, Inc. of West Chicago, Illinois. After the initial PDI activities were completed, four additional wells were installed to better define the distribution of COCs in groundwater. These drilling activities were completed by Giles Engineering Associates, Inc. of Waukesha, Wisconsin on November 2 and 3, 2004.

Soil Borings

In total thirty eight (38) soil borings were advanced during the PDI field activities. The rationale for the placement of the soil borings and monitoring wells is provided as Table 1.1.

- Eight (8) of the borings (S1 through S8) were completed in the OSA to identify and delineate the source material and understand the soil characteristics.
- Six (6) borings (S9 through S14) were completed in the loading dock area in the vicinity of former and current USTs and the former Plant #1 container storage area for source identification, delineation, and soil characteristic information.
- One (1) boring (S15) was completed in the Rockford Products parking lot area to determine if source material was present.
- Twenty one (21) borings (SMW-1, SMW-2, SMW-4 through SMW-10, SMW-11R, SMW-12 through SMW-15, SMW-16A, SMW-17 through SMW-22) were completed to establish a HS Plant #1 perimeter (which includes surrounding properties)

groundwater monitoring network at multiple levels within the aquifer and identify other potential source areas.

- Two (2) borings for monitoring wells (SMW-11 and SMW-16) were subsequently abandoned and replaced. SMW-11 was completed as a monitoring well, however it was damaged during installation and was abandoned and replaced by SMW-11R. SMW-16 was drilled and soil samples collected, however, the location for monitoring well (SMW-16A) was moved to allow for greater overhead clearance of the drill rig for safety reasons.

At locations where well nests were installed only the deep aquifer boring was sampled. The intermediate level aquifer borings completed adjacent to the deep boring was blind drilled for monitoring well installation. The numbers of borings presented above include all borings completed. The soil boring and monitoring well locations are presented on Figure 1.4. The soil boring logs are presented in Appendix C.

Groundwater Monitoring Well Installation and Refurbishment

The monitoring well network established by the PDI consists of a total of 28 monitoring wells. Twenty one (21) new groundwater monitoring wells were installed within Area 9/10 as part of the PDI field activities. The wells are identified as follows: SMW-1, SMW-2, SMW-4 through SMW-10, SMW-11R, SMW-12 through SMW-15, SMW-16A, and SMW-17 through SMW-22. Seven of the wells existed before the PDI (SMW-3, MW-3FGA, MW-7FGA, MW127, MW201, MW202, and MW203). All of the existing monitoring wells in Area 9/10 were inspected to determine their integrity and fitness for use. There are also three active recovery wells (RW-1, RW-2 and RW-3R) located in the South Alley of the facility which are gauged for liquid levels but were not sampled. The recovery wells are not considered part of the Site groundwater monitoring network.

Well nests consisting of three wells at different depths within the aquifer were installed during the PDI. Six of the new wells were installed adjacent to three existing wells (MW201, MW-7FGA, and MW-3FGA) which are screened across the water table. These well nests are screened to monitor the unconsolidated aquifer groundwater at: 1) the water table (approximately 30'-45'); 2) at an intermediate depth within the aquifer (approximately 80'-100'); and 3) deep within the aquifer (approximately 120'-140'). The intermediate depth

wells are identified as SMW-9, SMW-11R, and SMW-13. The deep aquifer monitoring wells are identified as SMW-10, SMW-12, and SMW-14.

A monitoring well construction detail summary is provided as Table 1.2. The well locations and screen section depth of the wells are presented on Figure 1.5. The monitoring well construction information is provided in Appendix D.

During the PDI activities it was identified that a pump in well RW-3 was damaged and lodged in the well. In December 2004 the screen and riser of well RW-3 were removed. The well was overdrilled and a new well installed at the same location. This new well is identified as RW-3R. The boring and well construction logs for well RW-3R are provided in Appendices C and D, respectively.

Soil Sampling and Analysis

A total of 178 soil samples (excluding quality assurance/quality control samples (QA/QC)) were collected from 30 of the 38 soil borings completed. The borings where soil samples were collected and analyzed are as follows: S1 through S15, SMW-1, SMW-2, SMW-4 through SMW-8, SMW-10, SMW-12, SMW-14 through SMW-16, SMW-16A, and SMW-17 through SMW-22. In addition to the COCs identified in the ROD all of the soil samples were analyzed for VOCs and diesel range organics (DRO) as jet propellant – 4 (JP-4).

Soil samples collected from the borings within the OSA (S1 through S8) were also analyzed for RCRA metals using the TCLP method. This was done to assess soil conditions associated with RCRA regulatory requirements. Two or three soil samples were collected from each location except in the OSA where samples were collected from intervals every two feet. From all of the borings other than those in the OSA, a minimum one sample was collected in the upper portion of the soil column and a depth close to the water table. Soil samples were collected from the deepest boring in each well nest area and, therefore, no samples were collected for analysis during the installation of the intermediate depth monitoring wells (SMW-9, SMW-11R, and SMW-13).

Groundwater Sampling and Analysis

After installation each of the new groundwater wells was properly developed. Two groundwater sampling events were completed. The first event occurred over the period of April 26 and 27, 2004 when a total of 24 groundwater samples (excluding QA/QC samples) were collected from monitoring wells SMW-1 through SMW-15, SMW-16A SMW-17, SMW-18, MW-3FGA, MW-7FGA, MW127, and MW201 through MW203. All of the samples collected were analyzed for VOCs and DRO/JP-4.

The second groundwater sampling event occurred over the period of November 16 and 17, 2004 when a total of 28 groundwater samples (excluding QA/QC samples) were collected from monitoring wells SMW-1 through SMW-15, SMW-16A, SMW-17 through SMW-22, MW-3FGA, MW-7FGA, MW127, and MW201 through MW203. All of the samples collected were analyzed for VOCs and DRO/JP-4.

Boring and Well Location Survey

In April and December 2004 the horizontal locations and ground surface elevations of the soil borings and top of casing elevations of all the wells were surveyed by Missman Stanley & Associates of Rockford, Illinois, a licensed Illinois Surveyor. The well survey information is provided on Table 1.2.

2.0 SAMPLING METHODS AND PROCEDURES

SECOR subcontracted drilling and laboratory analytical services as part of this effort. The drilling and monitoring well installation activities were completed by MidAmerica Drilling, Transhield Underground Services, and Giles Engineering Associates. Laboratory services were subcontracted to Severn Trent Laboratories (STL) located in University Park, Illinois. The methods used and procedures followed were in general conformance with the Field Sampling Plan and Quality Assurance Project Plan (QAPP) unless otherwise noted.

2.1 SOIL BORINGS

Prior to drilling activities all locations were checked for the presence of subsurface and overhead utilities. Methods of subsurface utility clearance included: JULIE, consultation with facility representatives, private utility locate services, along with pre-probing and/or hand auguring of the near surface soil. Soil sampling was performed in association with the soil borings. A total of 38 soil borings were advanced, 21 of which will be converted into monitoring wells. The soil boring and monitoring well locations are shown on Figure 1.4. Soil borings not completed as monitoring wells (S1 through S15, SMW-11, and SMW-16) were abandoned in accordance IEPA guidance.

Soil samples were retrieved on a continuous basis from soil borings using split spoon samplers or core tube apparatus. The sample collection method was determined by the type of drilling equipment used. Hollow stem drilling utilized split spoon samplers. Direct push equipment used core tube sampling devices. The retrieved samples were field screened for VOCs using an Organic Vapor Monitor model number 580B photoionization detector (PID) with an 11.7 eV lamp which was calibrated to an isobutylene standard. In general, portions of each core exhibiting the highest PID reading were segregated from the soil core and placed in a glass jar or a plastic bag and sealed for headspace screening. PID measurements were recorded by sample interval on the boring log for each boring. The headspace samples were allowed to equilibrate to ambient temperatures (approximately 70 degrees Fahrenheit) for approximately 10 minutes and then were measured for headspace readings with the PID. A split sample from each core was placed in the appropriate laboratory provided glass jars and placed in a cooler with ice for potential submittal to the laboratory for analysis.

The frequency of soil samples submitted for laboratory analysis varied depending on the location of the borings. The soil samples for laboratory analysis from the eight borings at the OSA (S1 through S8) were collected on a continuous basis and samples were collected for analysis at intervals of two feet. The soil samples from the remaining 30 borings on the HS Plant #1 and surrounding properties were collected on a continuous basis. Two to three samples for laboratory analysis were collected from each boring. A sample was collected from the interval in the boring exhibiting the highest PID headspace. If a boring did not exhibit elevated PID readings but was stained or had a chemical odor, then a sample from the stained or the odorous interval was selected. In the absence of elevated PID readings, staining, or odor, a sample was collected from an interval near but above the water table interface. All soil samples were analyzed for VOCs and DRO/JP-4. Soil samples from the OSA were also analyzed for RCRA metals by TCLP.

Soil Classification

Subsurface material was visually and manually classified by the field geologist under the supervision of a licensed professional geologist in the State of Illinois. Logs of the borings indicate the depth and identification of various strata, rate of advancement, water elevation information, and pertinent information regarding the method of maintaining and advancing the drill hole. The soil was classified using the Unified Soil Classification System (USCS) per ASTM Standard D-2488-00.

Decontamination

All down-hole drilling equipment was steam-cleaned prior to initiation of any drilling activities and between each boring. Reusable sampling tools were decontaminated between uses with a potable water and non-phosphate detergent wash followed by a distilled water rinse. All decontamination fluids were containerized and retained in a secure location on-site pending the results of characterization analyses.

2.2 MONITORING WELLS

Monitoring Well Installation

Prior to drilling, all locations were checked for the presence of subsurface and overhead utilities. Monitoring wells were installed using hollow stem auger techniques. If soil boring and sampling was completed using direct push methods the location was overdrilled using hollow stem augers.

Monitoring Well Construction

All monitoring wells were constructed and installed in accordance with Title 77 IAC Part 920 and IEPA guidance relating to the installation of monitoring wells in aquifers. The groundwater monitoring wells were constructed of two-inch inside diameter (I.D.), 15 or 20 feet long, #20 slot, 304 stainless steel well screens connected to the ground surface by two-inch I.D., schedule-40 PVC well casing or two-inch 304 stainless steel riser. The water table at the Site is approximately 30 to 35 feet below ground surface (bgs). Any portion of the monitoring well that could potentially be in contact with the water table was constructed using stainless steel materials. The monitoring well screen to monitor the upper portion of the saturated zone were placed so that it would bisect the water table at a ratio of approximately five (5) feet above the water table and 10 feet below the water table.

Three groups of nested wells were installed. Each nest contains a well screened across the water table (approximately 30 to 45 feet bgs), a well screened at an intermediate depth (approximately 80 to 100 feet bgs) and one screened at a deeper depth (approximately 120 to 140 feet bgs).

For all wells, the borehole annulus adjacent to the well screen was backfilled with clean medium-grained washed sand to a point approximately two (2) feet above the top of the screen. For the monitoring wells intersecting the water table the remaining borehole annulus was backfilled with bentonite chips hydrated in place to ground surface. For the intermediate and deep wells (SMW-9, SMW-10, SMW-11R, SMW-12, SMW-13, and SMW-14) a bentonite seal was installed and the remainder of the annular space was filled with a cement and bentonite grout via tremie pipe from the base upward beginning just above the

bentonite seal to the ground surface. The monitoring wells were completed at the ground surface in flush mount vaults with two exceptions. The wells SMW-6 and SMW-7 were finished as stick-up wells with protective metal casings and bollards. At the nested well locations, the deep well was installed first to evaluate the appropriate well screen elevation for the intermediate depth well installations.

Monitoring Well Development

Each well was developed by either pumping or bailing following installation. A minimum of 10 well volumes of groundwater were removed from the monitoring wells as part of development. During development activities, groundwater quality parameters were monitored and recorded. Development of four existing wells (SMW-3, MW-3FGA, MW-7FGA, and MW127) was also completed.

Monitoring Well Refurbishment

The existing monitoring wells (MW-3FGA, MW-7FGA, SMW-3, MW127, MW201, MW202, and MW203) were inspected to determine their integrity. Monitoring well MW-7FGA was refurbished by replacing the well vault and installing a new concrete surface seal. All of the remaining wells including IEPA monitoring well MW127, and monitoring wells owned by the City of Rockford (SMW-3, MW201, MW202, and MW203) were inspected and found to be intact and adequate for the purpose of the PDI. Padlocks were placed on all monitoring wells for security with the exception of MW201, MW202, and MW203. These wells are part of the Site-wide groundwater monitoring network and are under the control of the City of Rockford.

2.3 BORING AND WELL LOCATION SURVEY

Soil boring and monitoring well locations were surveyed with respect to a known United States Geological Survey datum point (providing easting, northing, and elevation relative to mean sea level) by Missman-Stanley, a land surveyor licensed in Illinois. In addition, the surface elevations of each soil boring and the top of casing measuring point elevations of each monitoring well were surveyed to the nearest 0.01 foot.

2.4 GROUNDWATER SAMPLING

Specific groundwater sampling procedures were outlined in the field sampling plan (FSP). Unless otherwise noted, the activities were conducted in general accordance with this plan.

Fluid Level Measurements

Prior to sampling the monitoring wells, fluid level measurements were taken at each individual well. Measurements were taken with a water level meter capable of measuring to the nearest 0.01 foot. Total depth of the well and depth to water were recorded for each well. Between wells, the water level indicator tape was decontaminated using a non-phosphate detergent and water spray followed by a distilled water rinse. This data was noted in the project field book and water elevation data sheets.

Monitoring Well Purging

Monitoring wells were purged prior to sampling. At least three well volumes were removed during the purging process. The amount of water purged per well volume was calculated according to the following formula:

$$(3.1416 \times (r/12)^2) \times (TD\text{-}DTW) \times 7.481 = 1 \text{ well volume (gallons)}$$

Where,

r = well radius (inches)

TD = total well depth (feet)

DTW = depth to water (feet)

3.1416 = π

7.481 = constant (gallons per cubic foot)

As part of the well purging process, prior to sampling, groundwater quality parameters were measured. Field readings of pH, temperature, and conductivity were performed on groundwater collected from each purge volume, and noted on the field sampling sheet. A well was considered adequately purged for sampling when the readings stabilized to ±10 percent over consecutive readings.

The pH/temperature/conductivity meter was calibrated at the beginning of each day. Purge water collected during the sampling event was temporarily placed in a portable tank or designated 55-gallon drum in a secure location prior to offsite treatment or disposal.

Groundwater Sample Collection

The extent and distribution of groundwater impact was characterized through the analyses of VOCs and DRO/JP-4 analyses. Samples for VOC analysis were collected in 40-ml glass vials provided by the laboratory. Samples for DRO/JP-4 analysis were collected in two 1-liter glass containers provided by the laboratory. New disposable nitrile gloves were used at each sampling location. The order of sample collection in each sample group progressed from the anticipated cleanest well to those likely to be most impacted.

The groundwater samples were collected using a new disposable polyethylene bailer at each well location. The exception to this was the three Site Wide wells with dedicated sampling systems (MW201, MW202, and MW203). Sampling procedures for these wells are described in the paragraph below. During sampling, the bailer was slowly lowered into the well water. VOC samples were collected by slowly decanting the water in the 40-ml glass vials. Vials were filled until a convex meniscus was present and then capped. The cap was then secured and the vial was checked for trapped air. Any samples with entrained air were discarded, and new samples collected. The DRO/JP-4 samples were also collected by bailer and decanted into the laboratory provided containers. Duplicate and field blank samples were also collected. Light non-aqueous phase liquids were not encountered during the groundwater sampling events.

The Site Wide monitoring wells fitted with dedicated downhole pump sampling systems were used to collect groundwater samples. The samples were collected after initial purging and the stabilization of water quality parameters (pH, temperature, and conductivity) using a flow through cell for real time measurement. Groundwater samples were collected from the discharge stream (at reduced flow) in the same manner as described above. The City of Rockford's sub-consultant for Site Wide groundwater sampling, Anderson & Egan Co. of Rockford, Illinois (A&E), completed the sampling of these wells using flow through cell equipment. The April 2004 event was coordinated with Site Wide sampling activities and

split samples were obtained by SECOR. The November 2004 sampling of these three wells was completed by A&E under a subcontract agreement with SECOR.

Groundwater samples were placed on ice in a cooler in the field following collection and then transferred to the field sample refrigerator prior to submittal to the laboratory under chain of custody procedures.

2.5 ANALYTICAL METHODS AND QUALITY ASSURANCE / QUALITY CONTROL

The analytical methods and associated QA and QC samples were identified in the FSP and the QAPP. The analytical methods used and the QA/QC of the samples were in accordance with these documents unless otherwise noted.

Analytical Method Requirements

The extent and distribution of COCs in soil was characterized through the analyses of VOCs, DRO/JP-4, and RCRA metals by TCLP. Samples for VOC analysis were collected in accordance with Method 5035 with a syringe sampler, and extruded into 40-ml glass vials preserved with methanol and sodium bisulfate provided by the laboratory. Each VOC soil sample required 5 gram samples extruded into two sodium bisulfate pre-weighed vials for low level analysis, a 5 gram sample extruded into one methanol preserved pre-weighed vial for medium level analysis, and one non-preserved 8-ounce glass container filled with soil for percent total solids determination. Samples for DRO/JP-4 analysis and TCLP metals were collected in 4-ounce glass containers provided by the laboratory. Soil and groundwater samples were placed on ice upon collection. The laboratory provided 40 ml VOC vials with hydrochloric acid preservative for groundwater samples. The groundwater DRO/JP-4 analysis did not have any additional method requirements.

Sample Documentation

Upon collection of soil and groundwater samples the sample collection time and identification number was recorded in the project field book. The sample description, number, interval, and time were also annotated on the field boring log.

Quality Control Samples

Quality control (QC) samples were collected as part of the sampling effort. Field QC samples were submitted as separate samples to the laboratory and were reported accordingly. Field blanks, rinsate/equipment blanks, matrix spike, matrix spike duplicates, and field duplicates were used during this investigation. Additional information regarding the preparation and frequency of these samples is provided below.

- Field blanks consisted of deionized water that was taken to the field, transferred to the appropriate container (one liter amber glass bottle), and preserved. The use and frequency of field blanks was not specified in the QAPP. Two (2) field blanks were collected and analyzed, one during each of the groundwater sampling rounds.

- Rinsate/equipment blanks consist of deionized water that is taken to the field, poured over sampling equipment that has undergone decontamination procedures, transferred to the appropriate container (one liter amber glass bottle), preserved, and otherwise treated as a sample during the course of the sampling event. In the QAPP it was identified that rinsate/equipment blanks would be collected for each representative activity for soil sample collection. Two (2) rinsate/equipment blanks were collected during the soil sampling activities. No equipment blanks were collected during the groundwater sampling events as single-use disposable bailers were used.

- A matrix spike is an aliquot of sample spiked with a known concentration of the analyte of interest. Percent recovery of the known concentration of added analyte is used to assess accuracy of the analytical process. The spiking occurs prior to the sample preparation and analysis. The matrix spike is used to document the accuracy of a method due to sample matrix changes and not to control the analytical process. The analysis of matrix spikes is a measure of accuracy and is calculated by percent recovery. Matrix spikes for soil and water were to be collected in the field and analyzed at a rate of one per 20 samples analyzed. Fourteen (14) matrix spike samples for soil and five (5) matrix spike samples for groundwater were collected and analyzed.

- Matrix spike duplicates were prepared in the same manner as the matrix spike samples and were used to assess the precision of the matrix spike analysis. Matrix spike duplicates for soil and groundwater were to be collected in the field at a rate of one per 20 samples. Fourteen (14) matrix spike duplicate samples for soil and five (5) matrix spike duplicate samples for groundwater were collected and analyzed.

- Field duplicates consisted of soil or groundwater samples collected in the field using a consistent methodology as the investigation sample. Field duplicate samples are transferred to an appropriate laboratory supplied sample container and treated as an independent sample with the exception that the field duplicate samples were to be labeled in such a manner to not indicate the time or location in which the sample was collected (i.e. blind duplicates). One duplicate for every 20 soil or groundwater samples was specified in the QAPP. Nine (9) soil and four (4) groundwater field duplicates were collected and analyzed. The duplicate samples were, however, identified as to the location of sampling and not blind duplicates as initially proposed.

Trip blanks also accompanied each shipment of soil and groundwater samples to the laboratory. A total of 23 trip blanks accompanied the soil samples and six (6) accompanied the groundwater samples. The trip blanks were analyzed for VOCs only.

Soil and groundwater analytical QA/QC sample summaries are provided as Tables 2.1 and 2.2, respectively.

Laboratory Analytical Results Verification

The laboratory analytical reports were verified by an independent third party, Legend Technical Services, Inc. of St. Paul, Minnesota (Legend). The verification process included but was not limited to a review of the following information:

- Comparison of submitted reports and chain of custody documents
- Review of the case narratives for data usability
- Review of the laboratory QC data.

3.0 PROJECT DOCUMENTATION

3.1 FIELD DOCUMENTATION

The field activities were documented in a project specific field logbook. The level of information documented allows for the reconstruction of the site activities and observations on a daily basis. This information includes personnel, subcontractors, visitors, start and end times, weather, level of personal protection being used, equipment used and field observations.

The equipment used to collect samples was noted, along with the time of sample collection, a sample description, and the depth at which the sample was collected. Sample identification numbers were also noted for field and QC samples.

3.2 SAMPLE DESIGNATION

Sample site-specific identification numbers were assigned prior to sample collection. The site-specific sample number consisted of the following:

- Project Identification Code: A designation used to identify the site where the sample was collected. The project identification code used for the PDI soil and groundwater samples was RD for remedial design.

- Sample Matrix Code: Each sample was identified in the field notebook by an alpha-numeric code corresponding to the sample matrix/type. The alpha numeric codes used for the PDI were:

    - FB - Field blank
    - GW - Groundwater samples
    - SB - Soil boring samples
    - TB - Trip blank
    - FD - Field duplicate

There was a deviation from the FSP duplicate naming procedure. Sample duplicates were identified by appending a "D" to the sample matrix code. For example GWD identified a duplicate groundwater sample.

- Location code: The location code consisted of a two to five digit numeric or alpha-numeric code that indicated the sample location. The soil boring codes were S1 through S15. The monitoring well codes used were SMW1 through SMW22. Location codes lower than 10 were preceded by '0', e.g., '01'; '02'; etc. Soil, field duplicate, trip blank, and field duplicate samples used a consecutive numbering system starting at 01.

- Round Code: The round code for all samples was a two digit number preceded by a hyphen. Round 01 identifies the first round of groundwater samples collected in April 2004. Round 02 identified the second round of groundwater samples collected in November 2004 during the PDI.

Examples of sample numbers are as follows:

- RD-GW-SMW10-01 = PDI, groundwater sample from well SMW-10, April 2004
- RD-GWD-SMW18-02 = PDI, duplicate groundwater sample from well SMW-18, Round 02 (November 2004)
- RD-GWFB-01-01 = PDI, field blank 01, round 01
- RD-SB-S1(7-8) = PDI, soil sample from boring S1, collected from a depth of 7 to 8 feet

Round codes were not used for soil samples as the same location cannot be resampled and subsequent borings in the area would have a unique location code. The groundwater samples collected in November 2004 from the new monitoring wells installed that month were designated as Round 01. This sampling event was Round 02 for the rest of the wells.

3.3 SAMPLE CUSTODY, STORAGE, AND SHIPPING

All samples were accompanied by a properly completed chain of custody form which included a complete list of the sample numbers and locations. The samples were placed in a cooler on ice following collection. The samples were transferred to a refrigerator in the Site field trailer until such time as they were packaged for shipment to the laboratory. The samples were in the possession of SECOR personnel until pickup by a STL laboratory representative. Proper documentation was performed during the transfer of sample custody.

4.0 SAMPLING EQUIPMENT DECONTAMINATION AND WASTE DISPOSAL

Equipment for the soil and groundwater sampling consisted of a sampling spatula, pH/conductivity/ temperature meter, disposable polyethylene tubing (or equivalent), a submersible sampling pump, new polyethylene disposable bailers, and new nylon rope. In addition, an electronic water level indicator meter was used to measure the total depth of the monitoring well and the depth to groundwater. In the deep monitoring wells greater than 100 feet in depth a non-electronic measuring tape was used to determine the total depth. The following outlines methods and procedures used in decontamination of the field equipment and instruments.

4.1 EQUIPMENT DECONTAMINATION

The drilling equipment used to advance the borehole was decontaminated between each boring location by steam cleaning the down-hole equipment. Sampling tools, spatulas, soil knives, etc. were washed with a non-phosphate detergent (Alconox® or equivalent) and rinsed with distilled water prior to and between uses. Decontamination water and purge water collected during the groundwater sampling activities was containerized at a secure location.

4.2 SAMPLING EQUIPMENT CALIBRATION

A pH/conductivity/temperature meter was used during the groundwater sampling activities to measure groundwater parameters to ensure collection of representative groundwater samples. A PID was used for the screening of soil samples collected during the field investigation. Field monitoring equipment was calibrated and operated according to the manufacturer's specifications. Proper documentation of calibration procedures was completed.

4.3 INVESTIGATION DERIVED WASTE DISPOSAL

Solid and liquid waste was generated during the course of the PDI. Soils were generated from boring and monitoring well installation. Liquid waste was generated from well development, sampling, and decontamination procedures. Both soil and liquid waste was transported and disposed by Clean Harbors Environmental of Pecatonica, Illinois.

Solid Waste

Soil and solid waste generated from boring and monitoring well installation activities were collected at the borehole/monitoring well location and placed either in 55-gallon drums or transported to a lined and covered roll-off box. All of the soil from the OSA soil borings was considered as containing listed hazardous waste. Soil from all other areas was evaluated to determine if the soil was characteristically hazardous. Three representative samples of the consolidated cuttings were collected and analyzed for some or all of the following parameters; VOCs by USEPA Method 8260B; SVOCs by USEPA Method 8270C; and Metals by USEPA Methods 6010B/7040A/7471A to determine the appropriate disposal method(s). Waste profile numbers CH54022 (hazardous) and CH54029 (non-hazardous) were developed based on these analyses.

A total of 76 cubic yards (at 2000 lbs per cubic yard) of solid waste was generated during the PDI activities. Fourteen cubic yards of soil was managed as hazardous waste. This soil was transported to the Clean Harbors Spring Grove Resource Recovery Facility (Spring Grove) located at 4879 Spring Grove Avenue in Cincinnati, Ohio. The soil was then shipped to the Clean Harbors Kimball Facility located at 2247 South Highway 71 in Kimball, Nebraska for incineration.

The 62 cubic yards of non-hazardous soil was transported to either the Clean Harbors Service Facility located at 11800 South Stoney Island Ave, Chicago, Illinois (Stoney Island) or to Spring Grove. The 63 cubic yards soils shipped to Stoney Island was disposed at the Liberty Landfill located at 8635 E SR 16 in Monticello, Indiana. The one cubic yard shipped to Spring Grove was disposed at the Rumpke Landfill in Cincinnati, Ohio.

Liquid Waste

Liquid waste was generated from well development, sampling, and decontamination activities were collected at the monitoring well location or from the decontamination areas. 55-gallon drums or a 110-gallon polyethylene tote tank was used to collect the waste. The majority of the liquid waste was transported and placed into 550-gallon portable tanks. Additional liquids were stored in 55-gallon drums. Decontamination water from the OSA was considered to be hazardous based on its origin within the RCRA area. All of the liquid

waste was evaluated to determine if it was characteristically hazardous. Two representative samples of the waste liquid were collected and analyzed for some or all of the following parameters; VOCs by USEPA Method 8260B and Metals by USEPA Method 6010B/7470A to determine the necessary and proper disposal method(s). Waste profile numbers CH54023 (hazardous) and CH54033 (non-hazardous) were developed based on these analyses.

A total of approximately 10,100 gallons (based on 55 gallons per drum) of liquid waste was generated and disposed of during the PDI activities. The 995 gallons of hazardous liquid wastes were transported to Spring Grove and were incinerated at the Deer Park Facility located in LaPorte, Texas and Aragonite Facility located in Aragonite, Utah. Non-hazardous liquid waste was transported to Stoney Island (9,105 gallons) and Spring Grove (55 gallons). The wastewater was treated with carbon filtration or other methods at these facilities.

4.4 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) used by personnel at the Site was visually inspected for contamination upon removal. If no evidence of contaminant staining was visible then the PPE was double bagged in trash bags and disposed in an on-site dumpster specified for this purpose for ultimate disposal at a sanitary landfill. If contamination was present on the PPE, the PPE was containerized in an on-site 55-gallon drum designated for this purpose and disposed of as IDW along with site solid wastes.

5.0 INVESTIGATION RESULTS

5.1 GEOPHYSICAL SURVEY RESULTS

A geophysical survey was performed over a 150 feet by 150 feet portion of the Rockford Products parking lot south of the Site and east of 9th Street. Two types of geophysical survey equipment were used; 1) electromagnetic survey and 2) ground penetrating radar. The survey was designed to identify underground storage tanks, utilities, or other general subsurface features that might affect the PDI or identify the location of potential source materials associated with the 1996 analytical results from well MW201 within this area.

Three significant anomalies were identified by both survey methods. These anomalies appeared to be magnetic (ferrous) metal but not USTs or underground utilities. They were likely buried metal objects or slag fill material. There were also some minor anomalies identified by the GPR. These were thought to be miscellaneous cultural items buried over time. The geophysical survey did not identify any subsurface USTs, utilities, or other subsurface features of significance to the PDI activities.

A copy of the GZA geophysical survey report is provided in Appendix E.

5.2 SOIL ANALYTICAL RESULTS

A total of 178 soil samples (not including quality assurance/quality control samples (QA/QC)) were collected from the 38 soil borings. All of the collected samples were analyzed for VOCs and DRO/JP-4. In addition, soil samples collected from the soil borings with the OSA (S1 through S8) were analyzed for RCRA TCLP metals to assess additional RCRA requirements in this area and support potential additional work activities (excavation of impacted soil within the former RCRA OSA that may be considered and implemented by HS to meet these regulatory requirements).

Of the 178 soil samples submitted, 70 samples exceeded preliminary remediation goals specified in the ROD and 35 IAC 742 Soil Remediation Objectives from which they were derived. The boring locations that exhibited RO exceedances were S1 through S8, S12,

S13, S14, SMW-5 and SMW-19. The compounds that exceed ROs include 1,2-DCE, PCE, TCA, TCE, mercury, cadmium, and lead. The laboratory analytical reports are provided in Appendix F.

OSA

Soil borings S1 through S8 were advanced within the OSA. Soil samples from each of the soil borings in the OSA were collected at intervals of two feet to a total depth of 32 to 34 feet bgs for a total of 123 soil samples. A total of 65 of the soil samples exceeded the Site ROs for one or more compounds. Each soil boring in the OSA had at least one sample that exceeded the ROs. The soil analytical results for the OSA samples are summarized in Table 5.1. The analytical results from the OSA which are above ROs are shown on Figure 5.1.

HS Plant #1 Property

A total of 19 soil borings were advanced on the HS property outside of the OSA during the PDI. Soil samples were collected from 16 of the 19 soil borings. Twelve (12) of the 19 soil borings were completed as monitoring wells. Soil borings/monitoring wells SMW-4, SMW-8, SMW-13 through SMW-15, SMW-19, and S9 through S14 (soil borings only) were advanced on the northern half of the HS property. Soil borings/monitoring wells SMW-5, SMW-11 (soil boring only), SMW-11R, SMW-12, SMW-20, SMW-21, and SMW-22 were advanced on the southern half of the HS property. The soil samples from the borings were collected on a continuous basis. Two or three samples were collected for laboratory analysis from each boring for a total of 39 soil samples. The soil analytical results from the loading dock, former Plant #1 container storage area, and from the HS Plant #1 monitoring well network installation are summarized in Table 5.2. The soil analytical results that exceed ROs are shown on Figure 5.2.

Offsite Properties

A total of eleven (11) soil borings were advanced on offsite (non-HS) properties during the PDI. Soil samples were collected from 10 of the 11 soil borings. Nine (9) of the 11 soil borings were completed as monitoring wells. The two borings not completed as wells (S15 and SMW-16) were abandoned with hydrated bentonite. Soil borings SMW-1 and SMW-2

were advanced in the southern ROW of 23rd Avenue north of the HS Plant #1. Soil borings SMW-7, SMW-16 through SMW-18, and SMW-16A were advanced on the 2525 11th Street property located south of the HS Plant #1 along 11th Street. Soil borings SMW-6, SMW-9, SMW-10, and S15 were advanced in the Rockford Products parking lot south of the Site along 9th Street. The soil samples from the borings were collected on a continuous basis. Two to three samples for laboratory analysis were collected from each boring for a total of 24 soil samples. None of the soil samples collected on the offsite properties exceeded the ROs. The soil analytical results from these borings are summarized in Table 5.2.

5.3 GROUNDWATER ANALYTICAL RESULTS

Two groundwater sampling events were conducted as part of the PDI. The two events occurred in April and November 2004. The samples were analyzed for VOCs by USEPA Method 8260 and DRO/JP-4 by Method 8015B to identify the presence of chlorinated solvents and JP-4, respectively.

April 2004 Event

On April 26 and 27, 2004 a total of 24 groundwater samples (not including QA/QC samples) were collected from monitoring wells SMW-1 through SMW-15, SMW-16A, SMW-17, SMW-18, MW-3FGA, MW-7FGA, MW127, and MW201 through MW203.

Analytical results indicate that VOC compounds were detected in 23 (SMW-1, SMW-2, SMW-4, SMW-5, SMW-6, SMW-7, SMW-8, SMW-9, SMW-10, SMW-11R, SMW-12, SMW-13, SMW-14, SMW-15, SMW-16A, SMW-17, SMW-18, MW-3FGA, MW-7FGA, MW127, MW201 through MW203) of the 24 monitoring wells sampled. A summary of the groundwater analytical results compared to ROs and 35 IAC Part 742 Class I groundwater standards is provided in Table 5.3.

November 2004 Event

On November 16 and 17, 2004 a total of 28 groundwater samples (excluding QA/QC samples) were collected.

The analytical results indicate that VOC compounds were present in all (SMW-1, SMW-2, SMW-3, SMW-4, SMW-5, SMW-6, SMW-7, SMW-8, SMW-9, SMW-10, SMW-11R, SMW-12, SMW-13, SMW-14, SMW-15, SMW-16A, SMW-17, SMW-18, SMW-19, SMW-20, SMW-21, SMW-22, MW-3FGA, MW-7FGA, MW127, and MW201 through MW203) of the 28 monitoring wells sampled at the site. A summary of the groundwater analytical results compared to the ROs for this event are also presented in Table 5.3.

The historical groundwater analytical results of detected compounds for Area 9/10 are presented on Figure 5.3. The April and November 2004 groundwater analytical laboratory reports are presented in Appendix F.

5.4 LABORATORY ANALYTICAL RESULTS VERIFICATION

The laboratory analytical reports were reviewed and verified by Legend Technical Services, Inc. No data was rejected. All samples were performed initially with the recommended holding times. Where re-extracts and dilutions were performed outside of holding times, this information was present in the associated case narratives. There were several typographical errors that were noted. There may have been some reported results that were biased low and others biased high based on a review of the QA/QC data. Air samples were included in the analytical reports on which the verification was performed. This data was generated during the Pilot Test conducted in the OSA which was reported separately.

A copy of the laboratory verification report is provided as Appendix G.

5.5 GROUNDWATER ELEVATION DATA AND FLOW DIRECTION

Depth to groundwater measurements were taken periodically in 2004 and 2005 during the PDI activities. Groundwater occurs beneath the Site at a depths ranging from approximately 29 to 35 feet bgs in the monitoring wells. Stratigraphy encountered in the borings was consistent across the Site. The saturated zone was encountered within a sand formation with varying amounts of gravel and silt. Within the sand aquifer there are some layers which are predominantly gravel. The sand aquifer extends to a depth of greater than 150 feet. This is the deepest drilling which occurred at the Site. The groundwater flow direction across the site is to the southwest with a gradient ranging from 0.00059 to 0.00091 ft/ft in

2004 and 2005. No clay confining unit or laterally continuous low permeability layer was identified within the aquifer. A summary of the groundwater elevation data is provided in Table 5.4. Groundwater potentiometric surface maps for April 2004, November 2004, May 2005, September 2005, and December 2005 are presented as Figures 5.4 through 5.8, respectively.

6.0 CONCLUSIONS

The PDI was initiated to complete the site characterization at the HS Plant #1 facility within Area 9/10 and provide sufficient data to identify locations or potential locations of source material such that remedial design activities could be completed effectively. The PDI results identified three areas where potential source material was found. Two of these areas are related to soil and the third is associated with groundwater.

Soil in the OSA may be considered source material. Concentrations of 1,1,1-TCA, 1,1-DCE, PCE, TCE, mercury, cadmium, and lead were detected in samples S1 through S8 above ROs. A number of the constituents were found in only relatively shallow soil (less than 8 feet bgs). PCE and cadmium were the only constituents detected above ROs in deeper soils. Metals are not COCs as defined in the ROD. However, the OSA is also subject to RCRA regulations and metals are of concern from this perspective.

In the loading dock and former container storage areas, soil concentrations at four boring locations (S12, S13, S14, and SMW-15) exceeded ROs. The elevated concentrations were all in the shallow soil sample intervals at these locations. There were no RO exceedances in the deeper soil samples analyzed at these locations. Some soil in this area could be considered source material. This area is presently covered with asphalt.

There was a soil PCE RO exceedance at the SMW-5 location (5 to 7 feet) southwest of the HS Plant # 1building. There was however no PCE detected in the deep soil sample at this location. This area is not considered source material in the context of the ROD.

Groundwater above ROs was detected in wells located southwest of the HS Plant #1 building. Based on the groundwater level data and analytical results there appears to be source material in an area beneath the building south of the loading dock area. The groundwater analytical results indicated that 1,1-DCA, 1,1-DCE, 1,2-DCE, 1,1,1-TCA, TCE, PCE, vinyl chloride and benzene are present in groundwater at concentrations above ROs downgradient from this apparent source area.

The analytical results from the monitoring wells in the upper portion of the aquifer at the water table interface (30 to 45 feet bgs) upgradient of the facility indicate that concentrations of COCs are present. These wells are SMW-1, SMW-2, SMW-3, MW-3FGA, MW-7FGA, MW-202, and

MW203. The following constituents were detected in these upgradient monitoring wells in the upper portion of the aquifer: 1,1-DCA, 1,1-DCE, 1,2-DCE, PCE, 1,1,1-TCA, TCE, methylene chloride, chloroform, and DRO/JP-4.

The analytical results from the upgradient monitoring wells in the intermediate (80 to 100 feet bgs) aquifer depth (SMW-11R and SMW-13) indicate that concentrations of COCs are present. The following constituents were detected in wells upgradient of the HS facility operations in the intermediate portion of the aquifer: 1,1-DCA, 1,2 DCE, PCE, 1,1,1-TCA, TCE, acetone, carbon tetrachloride, and chloroform.

The analytical results from the upgradient deep (120 to 140 feet bgs) aquifer monitoring wells (SMW-12 and SMW-14) indicate that concentrations of COCs are present. The following constituents were detected in wells upgradient of the HS facility operations in the deep portion of the aquifer: 1,1-DCA, 1,1-DCE, 1,2-DCE, PCE, 1,1,1-TCA, and TCE.

The analytical results from the three well nests installed at intermediate and deep depths within the aquifer indicate that concentrations of COCs are at similar levels to the concentrations of COCs in the upgradient wells.

Based on the information collected during the PDI enough data was collected to proceed with remedial design activities.

TABLES

Rationale for Soil Boring and Monitoring Well Placement

Southeast Rockford Groundwater Contamination Superfund Site
Area 9/10
Rockford, Illinois

Soil Boring/ Monitoring Well Number	Boring Depth/Screen Interval BGS	Location	Purpose
S1 through S8	TD between 32 and 34 feet.	OSA	To collect soil and analytical information to aid in the development of the RD Pilot Test and identify potential source material.
S9 through S12	TD approximately 32 feet	Loading Dock Area near the North Alley	To collect soil and analytical information to aid in the development of the RD and identify potential source material.
S13 and S14	TD approximately 32 feet	Former Container Storage Area Plant #1	To collect soil and analytical information to aid in the development of the RD and identify potential source material.
S15	TD approximately 45 feet	Near the southwest HS property boundary, in the NE corner of the Rockford Products parking lot	To collect soil and analytical information to aid in the development of the RD and identify potential source material.
SMW-1	Screen interval approximately 25-40 feet	Northwest from the HS property, along the city right of way, along south side of 23rd Avenue	To collect groundwater data from the upper interval of the saturated zone upgradient of the site.
SMW-2	Screen interval approximately 26 -41 feet	North from the HS property, along the city right of way along the south side of 23rd Avenue	To collect groundwater data from the upper interval of the saturated zone upgradient of the site.
SMW-4	Screen interval approximately 28-43 feet	Along the west side of HS property boundary, east of 9th Street	To collect groundwater data from the upper interval of the saturated zone in that area of the site.
SMW-5	Screen interval approximately 28-43 feet	Near the southwest corner of the HS property boundary	To collect groundwater data from the upper interval of the saturated zone in that area of the site.
SMW-6	Screen interval approximately 30-45 feet	Near the southwest portion of the property, south of the South Alley, on the Rockford Products property.	To collect groundwater data from the upper interval of the saturated zone in that area of the site.
SMW-7	Screen interval approximately 30-45 feet	Near the south-central portion of the property, south of the South Alley on the former Nylint property.	To collect groundwater data from the upper interval of the saturated zone in that area of the site.
SMW-8	Screen interval approximately 28-43 feet	Along the west side of the HS property, near the western entrance to the North Alley	To collect groundwater data from the upper interval of the saturated zone in that area of the site.
SMW-9	Screen interval approximately 80-100 feet	Near the southwest portion of the HS property, south of the South Alley near MW201 in the Rockford Products parking lot.	To collect groundwater data from an intermediate interval of the saturated zone in that area of the site.
SMW-10	Screen interval approximately 120-140 feet	Near the southwest portion of the HS property, south of the South Alley near MW201 in the Rockford Products parking lot.	To collect groundwater data from the deeper interval of the saturated zone in that area of the site.
SMW-11	Screen interval approximately 80-100 feet	Near the southeast portion of the HS property, south of the South Alley near MW-7FGA	To collect groundwater data from a intermediate interval of the saturated zone upgradient of the site. NOTE: This well was abandoned due to damage that occurred during installation.
SMW-11R	Screen interval approximately 80-100 feet	Near the southeast portion of the HS property, south of the South Alley near MW-7FGA	Replacement monitoring well for SMW-11 that was abandoned on 3/24/04.

Rationale for Soil Boring and Monitoring Well Placement

Southeast Rockford Groundwater Contamination Superfund Site
Area 9/10
Rockford, Illinois

Soil Boring/ Monitoring Well Number	Boring Depth/Screen Interval BGS	Location	Purpose
SMW-12	Screen interval approximately 121-141 feet	Near the southeast portion of the HS property, south of the South Alley near MW-7FGA	To collect groundwater data from the deeper interval of the saturated zone upgradient of the site.
SMW-13	Screen interval approximately 80-100 feet	Near the southwest portion of the Former Mid-States Industrial property, north of the North Alley near MW-3FGA	To collect groundwater data from an intermediate interval of the saturated zone upgradient of the site.
SMW-14	Screen interval approximately 120-140 feet	Near the southwest portion of the Former Mid-States Industrial property, north of the North Alley near MW-3FGA	To collect groundwater data from the deeper interval of the saturated zone upgradient of the site.
SMW-15	Screen interval approximately 28-43 feet	North of the Loading Dock area.	To collect groundwater data from the upper interval of the saturated zone in that area of the site.
SMW-16	TD approximately 45 feet	Near the south-central portion of the property, south of the South Alley on 2525 11th Street.	Boring is to be converted into a monitoring well, however due to health and safety concerns the well was not installed. The well was installed further from utilities.
SMW-16A	Screen interval approximately 30-45 feet	Near the south-central portion of the property, south of the South Alley on 2525 11th Street.	To collect groundwater data from the upper interval of the saturated zone in that area of the site.
SMW-17	Screen interval approximately 30-45 feet	Near the south-central portion of the property, south of the South Alley on 2525 11th Street.	To collect groundwater data from the upper interval of the saturated zone in that area of the site.
SMW-18	Screen interval approximately 30-45 feet	Near the south-central portion of the property, south of the South Alley on 2525 11th Street.	To collect groundwater data from the upper interval of the saturated zone in that area of the site.
SMW-19	Screen interval approximately 30-45 feet	Near the southwest portion of the Former Mid-States Industrial property, in the North Alley near MW-3FGA	To collect groundwater data from the upper interval of the saturated zone in that area of the site upgradient of HS.
SMW-20	Screen interval approximately 30-45 feet	Near the southwest portion of the HS property in the South Alley.	To collect groundwater data from the upper interval of the saturated zone in that area of the site.
SMW-21	Screen interval approximately 30-45 feet	Near the southwest portion of the HS property in the South Alley.	To collect groundwater data from the upper interval of the saturated zone in that area of the site.
SMW-22	Screen interval approximately 30-45 feet	Near the south-central portion of the HS property in the South Alley.	To collect groundwater data from the upper interval of the saturated zone in that area of the site.

Notes:
BGS - Below Ground Surface
TD - Total Depth
RD - Remedial Design
HS - Hamilton Sundstrand
Identifies Monitoring Wells Installed in Addition to the Initial PDI Scope of Work.
Identifies Replacement Boring/Well

SECOR

TABLE 1.2

Monitoring Well Construction Detail Summary

Southeast Rockford Groundwater Contamination Superfund Site
Area 9/10
Rockford, Illinois

Well ID	Ground Surface Elevation (ft)	Top of Casing Elevation (ft)	Screen Length (ft)	Top of Screen (ft) bgs	Total Depth / Bottom of Screen (ft) bgs	Top of Screen Elevation (ft)	Bottom of Screen Elevation (ft)	Well Diameter (inches)	Well Screen Material	Well Screen Slot Size (0.000 inch)	Well Riser Material 1	Well Riser Material 2
MW127	726.24	728.65	10	34	44	694.65	684.65	2	ss	10	ss	--
MW201	728.86	728.59	10	34	44	694.59	684.59	2	ss	10	ss	--
MW202	729.33	729.12	10	34	44	695.12	685.12	2	ss	10	ss	--
MW203	729.11	728.70	10	34	44	694.70	684.70	2	ss	10	ss	--
RW-1	727.58	726.15	20	23	43	703.15	683.15	4	ss	20	ss	--
RW-2	727.47	726.36	20	23	43	703.36	683.36	4	ss	20	steel	--
RW-3	727.43	726.06	20	23	43	703.06	683.06	4	ss	20	ss	--
RW-3R	727.43*	726.06*	20	26	46	700.06	680.06	4	ss	20	ss	NA
MW-3FGA	728.79	728.43	--	--	46.70***	--	682.03	4	--	--	ss	--
MW-7FGA	727.96	727.60	--	--	47.08***	--	680.78	4	--	--	ss	--
SMW-1	730.15	729.76	15	25	40	704.76	689.76	2	ss	20	PVC Sch 40	NA
SMW-2	727.21	726.76	15	26	41	700.76	685.76	2	ss	20	PVC Sch 40	NA
SMW-3	727.57	726.97	--	--	37.80***	--	689.09	2	--	--	ss	--
SMW-4	729.03	728.59	15	28	43	700.59	685.59	2	ss	20	PVC Sch 40	NA
SMW-5	728.42	728.00	15	28	43	700.00	685.00	2	ss	20	PVC Sch 40	NA
SMW-6	728.96	731.29	15	30	45	701.29	686.29	2	ss	20	ss	NA
SMW-7	725.54	728.04	15	30	45	698.04	683.04	2	ss	20	PVC Sch 40	NA
SMW-8	729.27	728.84	15	28	43	700.84	685.84	2	ss	20	PVC Sch 40	NA
SMW-9	728.81	728.37	20	80	100	648.37	628.37	2	ss	20	ss	NA
SMW-10	728.91	728.59	20	120	140	608.59	588.59	2	ss	20	ss	NA
SMW-11R	728.08	727.70	20	80	100	647.70	627.70	2	ss	20	ss	NA
SMW-12	728.12	727.76	20	121	141	606.76	586.76	2	ss	20	ss	PVC Sch 40
SMW-13	729.09	728.86	20	80	100	648.86	628.86	2	ss	20	ss	PVC Sch 40
SMW-14	729.47	729.11	20	120	140	609.11	589.11	2	ss	20	ss	PVC Sch 40
SMW-15	728.33	727.90	15	28	43	699.90	684.90	2	ss	20	PVC Sch 40	NA
SMW-16A	727.82	727.54	15	30	45	697.54	682.54	2	ss	20	PVC Sch 40	NA
SMW-17	728.01	727.72	15	30	45	697.72	682.72	2	ss	20	PVC Sch 40	NA
SMW-18	727.60	727.32	15	30	45	697.32	682.32	2	ss	20	PVC Sch 40	NA
SMW-19	728.71	728.45**	15	27	42	701.45	686.45	2	ss	20	ss	NA
SMW-20	728.30	727.79**	15	29	44	698.79	683.79	2	ss	20	ss	NA
SMW-21	727.72	727.37**	15	27	42	700.37	685.37	2	ss	20	ss	NA
SMW-22	727.34	726.86**	15	27	42	699.86	684.86	2	ss	20	ss	NA

Notes:
Survey completed in April 2004
NA = Not applicable
ss = 304 stainless steel.
-- = Information not available.
Ground Surface Elevation and Top of Casing (TOC) information from the April 2004 survey
Screen Length, Top of Screen, and Total Depth/Bottom of Screen was information from the well installation documentation
Top of Screen Elevation was calculated by subtracting the Top of Screen from the TOC Elevation
Bottom of Screen Elevation was calculated by subtracting the Total Depth/Bottom of Screen from the TOC Elevation
Well Diameter, Well Screen Material, Well Screen Slot Size, Well Riser Material 1, and Well Riser Material 2 (Riser material above the water table) from well installation documentation
* = Replacement well not surveyed. Information from previous well RW-3 at same location used.
** = Surveyed in December 2004
*** = Bottom of screen was measured on January 14-15, 2004

02072.02t01

TABLE 2.1

Soil Analytical QA/QC Sample Summary

Southeast Rockford Superfund Site
Area 9/10
Rockford, Illinois

Medium	Method	No. of Samples	Field Blanks	Equipment Blank	Matrix Spikes	Matrix Spike Duplicates	Duplicate Samples	Trip Blanks	Total QA/QC Samples
Soil (VOCs)	SW846 Method 8260B	178	0	2	14	14	9	23	62
Soil (DRO/JP-4)	SW846 Method 8015B	178	0	0	14	14	9	0	37
Soil (RCRA metals)	SW846 1311/6010 B/7470A	123	0	0	9	9	6	0	24

Notes:
NA - Not applicable

Sufficient numbers of samples were submitted to the laboratory such that matrix spike and matrix spike duplicates did not need to be identified as additional samples on the chain of custody. These analyses were performed on the project samples as part of the regular laboratory procedures.

Groundwater Analytical QA/QC Sample Summary

Southeast Rockford Superfund Site
Area 9/10
Rockford, Illinois

April 2004 - Round 01

Media	Method	No. of Samples	Field Blanks	Equip-ment Blank	Matrix Spikes	Matrix Spikes Duplicates	Duplicate Samples	Trip Blanks	Total QA/QC Samples
Groundwater (VOCs)	SW846 Method 8260B	24	1	0	2	2	2	4	11
Groundwater (DRO/JP-4)	SW846 Method 8015B	24	1	0	2	2	2	0	7

November 2004 - Round 02

Media	Method	No. of Samples	Field Blanks	Equip-ment Blank	Matrix Spikes	Matrix Spikes Duplicates	Duplicate Samples	Trip Blanks	Total QA/QC Samples
Groundwater (VOCs)	SW846 Method 8260B	28	1	0	3	3	2	2	11
Groundwater (DRO/JP-4)	SW846 Method 8015B	28	1	0	3	3	2	0	9

Equipment blanks were not required as only single-use disposable equipment was utilized.

TABLE 5.1
SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)
(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, IL
S1

SECOR

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location	SB-S1 2-4'		SB-S1 4-6'		SB-S1 6-8'		SB-S1 8-10'		SB-S1 10-12'		SB-S1 12-14'		SB-S1 14-16'		SB-S1 16-18'		SB-S1 18-20'		SB-S1 20-22'		SB-S1 22-24'		SB-S1 24-26'		SB-S1 26-28'		SB-S1 28-30'		SB-S1 30-32'		SB-S1 32-34'	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)	Depth																													
					Sample Date	10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003	
					Units	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
					RES Q																													
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		***220,000***	***H***	***140,000***		***760***		***83***		***31***		***57***		***65***		***83***		***120***		***410***		***13***		***82***		***11***		***23***		***17***		***8.5***	
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		**440**	**U**	**410**	**U**	**90**	**U**	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		***7,600***		***11,000***		***230***		5.1	U	***4***	***Ja***	***11***		***8.2***		***7.2***	***Ja***	***17***		***120***		5.6	U	***15***		5.3	U	5.3	U	5.2	U	5.4	U
1,1-Dichloroethene	700,000	1,500,000	60	**		**440**	**U**	***560***		**90**	**U**	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
1,2-Dichloroethane	7,000	400	20	**		**440**	**U**	**410**	**U**	**90**	**U**	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	***7.2***		5.3	U	5.3	U	5.2	U	5.4	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		***12,000***		***9,400***		***280***		***19***		***6.1***		***14***		***12***		***11***		***24***		***130***		5.6	U	***22***		5.3	U	***4.5***	***Ja***	***3.5***	***Ja***	5.4	U
1,2-Dichloropropane	9,000	15,000	30	**		**440**	**U**	**410**	**U**	**90**	**U**	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
2-Butanone (MEK)	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
2-Hexanone	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	***32***		4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
Acetone	7,800,000	100,000,000	16,000	**		440	U	410	U	90	U	5.1	U	5.1	U	***18***		4.8	U	***13***		***10***	***M***	5.1	U	5.6	U	***9.2***		***6.8***	***M***	5.3	U	***18***		***12***	
Benzene	12,000	800	30	**		**110**	**U**	**100**	**U**	22	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	***4.7***	***Ja***	5.6	U	4.9	U	5.3	U	5.3	U	***2.6***	***Ja***	5.4	U
Bromodichloromethane	10,000	3,000,000	600	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	***21***		5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
Bromoform	81,000	53,000	800	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
Bromomethane	110,000	10,000	200	**		**440**	**U**	**410**	**U**	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
Carbon disulfide	7,800,000	720,000	32,000	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
Carbon tetrachloride	5,000	300	70	**		**440**	**U**	**410**	**U**	**90**	**U**	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
Chlorobenzene	1,600,000	130,000	1,000	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
Chloroethane	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
Chloroform	100,000	300	600	**		**440**	**U**	**410**	**U**	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
Chloromethane	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
cis-1,3-Dichloropropene	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
Ethylbenzene	7,800,000	400,000	13,000	**		110	U	100	U	22	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	***3.1***	***Ja***	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	***2.8***	***Ja***
Methylene chloride	85,000	13,000	20	**		**440**	**U**	**410**	**U**	**90**	**U**	5.1	U	5.1	U	4.7	U	4.8	U	***6.8***	***Ja***	***14***		5.1	U	***5.9***		***17***		***6.6***		5.3	U	5.2	U	5.4	U
Styrene	16,000,000	1,500,000	4,000	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
Tetrachloroethene	12,000	11,000	60	**		***360,000***		***150,000***		***2,200***		***520***		***62***		***73***		***110***		***180***		***220***		***660***		***38***		***130***		***32***		***46***		***35***		***23***	
Toluene	16,000,000	650,000	12,000	**		***1,700***		***2,300***		22	U	5.1	U	5.1	U	***6.4***	***M***	4.8	U	9.4	U	7.2	U	***9.6***		5.6	U	4.9	U	5.3	U	5.3	U	***6.8***		***7***	***H***
trans-1,3-Dichloropropene	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
Trichloroethene	58,000	5,000	60	**		***18,000***		***10,000***		**90**	**U**	***4.5***	***Ja***	***3.3***	***Ja***	***5.4***		***6.3***		***8.1***	***Ja***	***12***		***27***		5.6	U	***9.8***		5.3	U	5.3	U	5.2	U	5.4	U
Vinyl chloride	460	280	10	**		**440**	**U**	**410**	**U**	**90**	**U**	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
Xylenes (total)	160,000,000	320,000	150,000	**		330	U	310	U	67	U	5.1	U	5.1	U	***3.3***	***Ja***	4.8	U	9.4	U	7.2	U	***3.9***	***Ja***	5.6	U	4.9	U	5.3	U	5.3	U	***3.1***	***Ja***	***7.4***	
DRO/JP-4						89,000	U	89,000	U	4,800	U	4,700	U	4,300	U	4,200	U	4,200	U	4,300	U	4,200	U	4,800	U	4,300	U	4,300	U	4,300	U	4,200	U	4,300	U	4,200	U
			ug/L			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Arsenic,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Barium,TCLP			2,000			***390***	***B***	***390***		***780***	***B***	***500***	***B***	***280***	***B***	***480***	***B***	***360***	***B***	***430***	***B***	***430***	***B***	***500***	***B***	***370***	***B***	***420***	***B***	***350***	***B***	***390***	***B***	***320***	***B***	***320***	***B***
Cadmium,TCLP			5			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chromium,TCLP			100			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Lead,TCLP			7.5			***9.2***		7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U
Mercury,TCLP			2			2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Selenium,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Silver,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U

See endnotes for analytical qualifier explanation.

02072.02t02

SECOR

TABLE 5.1
SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)
(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, IL
S2

Analyte	ROD - Preliminary Remedation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location	SB-S2		SB-S2		SB-S2		SB-S2		SB-S2		SB-S2		SB-S2		SB-S2		SB-S2		SB-S2		SB-S2		SB-S2		SB-S2	
					Depth	2-4'		4-6'		6-8'		8-10'		10-12'		12-14'		14-16'		16-18'		18-20'		20-22'		22-24'		24-26'		26-28'		28-30'		30-32'	
					Sample Date	10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003		10/28/2003	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)	Units	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
					RES Q																											
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		***240,000***		***370***		***43***		***23***	***M***	***17***		***58***		***39***		***38***	***H***	***540***		***330***		***23***	***H***	***13***		***9.2***		***22***		***15***	
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		**170**	**U**	**94**	**U**	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	**90**	**U**	**100**	**U**	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		***8,100***		94	U	***6.8***		***3***	***Ja***	4.6	U	***9.7***	***H***	***5.8***		7.6	U	***110***		100	U	***2.7***	***Ja***	5.1	U	5.1	U	5.2	U	4.9	U
1,1-Dichloroethene	700,000	1,500,000	60	**		***1,300***		**94**	**U**	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	**90**	**U**	**100**	**U**	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
1,2-Dichloroethane	7,000	400	20	**		**170**	**U**	**94**	**U**	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	**90**	**U**	**100**	**U**	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		***7,200***		***280***		***30***		***13***		***11***		***26***		***16***		***10***		***320***		***210***		***8.1***		5.1	U	5.1	U	***5.8***		4.9	U
1,2-Dichloropropane	9,000	15,000	30	**		**170**	**U**	**94**	**U**	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	**90**	**U**	**100**	**U**	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
2-Butanone (MEK)	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	***8.1***		5.2	U	4.9	U
2-Hexanone	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Acetone	7,800,000	100,000,000	16,000	**		170	U	94	U	***14***		4.8	U	***50***		4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	***48***		5.2	U	***11***	
Benzene	12,000	800	30	**		**42**	**U**	23	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	22	U	25	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Bromodichloromethane	10,000	3,000,000	600	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Bromoform	81,000	53,000	800	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Bromomethane	110,000	10,000	200	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Carbon disulfide	7,800,000	720,000	32,000	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Carbon tetrachloride	5,000	300	70	**		**170**	**U**	**94**	**U**	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	**90**	**U**	**100**	**U**	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Chlorobenzene	1,600,000	130,000	1,000	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Chloroethane	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Chloroform	100,000	300	600	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Chloromethane	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
cis-1,3-Dichloropropene	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Ethylbenzene	7,800,000	400,000	13,000	**		42	U	23	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	22	U	25	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Methylene chloride	85,000	13,000	20	**		**170**	**U**	**94**	**U**	***12***		4.8	U	4.6	U	4.8	U	4.9	U	***11***		**90**	**U**	**100**	**U**	***9.8***		5.1	U	5.1	U	5.2	U	4.9	U
Styrene	16,000,000	1,500,000	4,000	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Tetrachloroethene	12,000	11,000	60	**		***320,000***		***1,100***		***120***		***120***		***87***		***150***		***140***		***190***		***1,800***		***890***		***98***		***55***		***40***		***74***		***48***	
Toluene	16,000,000	650,000	12,000	**		***540***		23	U	4.7	U	4.8	U	***9.6***		4.8	U	4.9	U	7.6	U	22	U	25	U	5.1	U	5.1	U	***11***		5.2	U	***6.2***	
trans-1,3-Dichloropropene	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Trichloroethene	58,000	5,000	60	**		***20,000***		***110***		***11***		***7***		***4.9***		***13***		***9.8***		***8.7***		***140***		**100**	**U**	***5.4***		5.1	U	5.1	U	5.2	U	4.9	U
Vinyl chloride	460	280	10	**		**170**	**U**	**94**	**U**	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	**90**	**U**	**100**	**U**	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Xylenes (total)	160,000,000	320,000	150,000	**		130	U	70	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	67	U	75	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
DRO/JP-4						4,900	U	4,700	U	4,500	U	4,400	U	4,300	U	4,200	U	4,300	U	4,400	U	4,800	U	5,100	U	4,300	U	4,200	U	4,200	U	4,300	U	4,200	U
			ug/L			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Arsenic,TCLP			50			***11***	***B***	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Barium,TCLP			2,000			***320***		***320***		***660***	***B***	***200***	***B***	***360***	***B***	***380***	***B***	***370***	***B***	***400***	***B***	***410***	***B***	***470***	***B***	***400***	***B***	***370***	***B***	***350***	***B***	***300***	***B***	***300***	***B***
Cadmium,TCLP			5			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	***12***		***4***	***B***	5	U	5	U	5	U	5	U	5	U
Chromium,TCLP			100			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Lead,TCLP			7.5			7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U
Mercury,TCLP			2			2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Selenium,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Silver,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U

See endnotes for analytical qualifier explanation.

TABLE 5.1
SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)
(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, IL
S3

SECOR

Analyte	ROD - Preliminary Remedation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location / Depth / Sample Date / Units		SB-S3 0-2' 10/28/2003 ug/kg		SB-S3 2-4' 10/28/2003 ug/kg		SB-S3 4-6' 10/28/2003 ug/kg		SB-S3 6-8' 10/28/2003 ug/kg		SB-S3 8-10' 10/28/2003 ug/kg		SB-S3 10-12' 10/28/2003 ug/kg		SB-S3 12-14' 10/28/2003 ug/kg		SB-S3 14-16' 10/28/2003 ug/kg		SB-S3 16-18' 10/28/2003 ug/kg		SB-S3 18-20' 10/28/2003 ug/kg		SB-S3 20-22' 10/28/2003 ug/kg		SB-S3 22-24' 10/28/2003 ug/kg		SB-S3 24-26' 10/28/2003 ug/kg		SBD-S3 24-26' 10/28/2003 ug/kg		SB-S3 26-28' 10/28/2003 ug/kg		SB-S3 28-30' 10/28/2003 ug/kg		SB-S3 30-32' 10/28/2003 ug/kg	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)	RES	Q																																		
1,1,1-Trichloroethane	NL	1,200,000	2,000	**			*680*		*4,800*		*170*		*8.1*	*H*	*12*	*H*	*55*		*58*		*29*	*H*	*42*		*480*		*110*		*8.6*	*H*	*12*	*H*	*8.8*	*M*	*9.6*	*H*	*9.7*	*H*	*19*	*M*
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**			**81**	**U**	**120**	**U**	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	**91**	**U**	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**			*100*		*1,300*		*58*		4.9	U	5	U	*10*	*M*	*8.2*		5.3	U	*3.7*	*Ja*	*120*		*36*		5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
1,1-Dichloroethene	700,000	1,500,000	60	**			**81**	**U**	**120**	**U**	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	**91**	**U**	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
1,2-Dichloroethane	7,000	400	20	**			**81**	**U**	**120**	**U**	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	**91**	**U**	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
1,2-Dichloroethene (total)	NL	NL	NL	NL			81	U	*750*		*40*		4.9	U	5	U	*9.2*		*8.6*		*2.7*	*Ja*	*4*	*Ja*	*110*		*27*		5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
1,2-Dichloropropane	9,000	15,000	30	**			**81**	**U**	**120**	**U**	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	**91**	**U**	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
2-Butanone (MEK)	NL	NL	NL	NL			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	*5.4*		5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
2-Hexanone	NL	NL	NL	NL			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Acetone	7,800,000	100,000,000	16,000	**			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	*5.8*		5.3	U	4.9	U	4.5	U	5.1	U
Benzene	12,000	800	30	**			20	U	30	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	23	U	*4*	*Ja*	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Bromodichloromethane	10,000	3,000,000	600	**			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Bromoform	81,000	53,000	800	**			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Bromomethane	110,000	10,000	200	**			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Carbon disulfide	7,800,000	720,000	32,000	**			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Carbon tetrachloride	5,000	300	70	**			**81**	**U**	**120**	**U**	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	**91**	**U**	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Chlorobenzene	1,600,000	130,000	1,000	**			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Chloroethane	NL	NL	NL	NL			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Chloroform	100,000	300	600	**			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Chloromethane	NL	NL	NL	NL			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
cis-1,3-Dichloropropene	NL	NL	NL	NL			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Ethylbenzene	7,800,000	400,000	13,000	**			20	U	30	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	23	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Methylene chloride	85,000	13,000	20	**			**81**	**U**	**120**	**U**	4.4	U	4.9	U	*5.4*		*10*		*7.7*		5.3	U	4.9	U	**91**	**U**	5	U	*14*		*6.5*		5.3	U	4.9	U	4.5	U	*11*	
Styrene	16,000,000	1,500,000	4,000	**			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Tetrachloroethene	12,000	11,000	60	**			*2,200*		*20,000*		*120*		*12*		*22*		*75*		*82*		*61*		*82*		*800*		*96*		*26*		*32*		*25*		*28*		*21*		*49*	
Toluene	16,000,000	650,000	12,000	**			20	U	30	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	23	U	*7.8*		5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
trans-1,3-Dichloropropene	NL	NL	NL	NL			81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Trichloroethene	58,000	5,000	60	**			**81**	**U**	*450*		*9.2*		4.9	U	5	U	*4*	*Ja*	*5*		5.3	U	*3.8*	*Ja*	**91**	**U**	*6.2*		5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Vinyl chloride	460	280	10	**			**81**	**U**	**120**	**U**	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	**91**	**U**	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
Xylenes (total)	160,000,000	320,000	150,000	**			61	U	90	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	68	U	5	U	5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
DRO/JP-4							4,400	U*	4,900	U*	4,900	U*	4,400	U*	4,400	U*	4,300	U*	4,300	U*	4,200	U*	4,300	U*	4,600	U*	4,800	U*	4,300	U*	4,300	U*	4,300	U*	4,200	U*	4,300	U*	4,200	U*
			ug/L				ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Arsenic,TCLP			50				50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Barium,TCLP			2,000				*700*	*B*	*740*	*B*	*740*		*590*	*B*	*430*	*B*	*410*	*B*	*420*	*B*	*410*	*B*	*410*	*B*	*430*	*B*	*350*	*B*	*370*	*B*	*390*	*B*	*400*	*B*	*330*	*B*	*400*	*B*	*410*	*B*
Cadmium,TCLP			5				*10*		*4*	*B*	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chromium,TCLP			100				*50*	U	*50*	U	*50*	U	*50*	U	*50*	U	*50*	U	*50*	U	*50*	U	*50*	U	*50*	U	*50*	U	*50*	U	*50*	U	*50*	U	*50*	U	*50*	U	*50*	U
Lead,TCLP			7.5				7.5	U	*7*	*B*	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U
Mercury,TCLP			2				2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Selenium,TCLP			50				50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Silver,TCLP			50				50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U

See endnotes for analytical qualifier explanation.

SECOR

TABLE 5.1
SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)
(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, IL
S4

Analyte	ROD - Preliminary Remedation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location	SB-S4		SB-S4		SB-S4		SB-S4		SB-S4		SB-S4		SB-S4		SB-S4		SBD-S4		SB-S4		SB-S4		SB-S4		SB-S4		SB-S4		SB-S4	
					Depth	0-2'		2-4'		4-6'		6-8'		8-10'		10-12'		12-14'		16-18'		18-20'		18-20'		20-22'		22-24'		24-26'		26-28'		28-30'		30-32'	
					Sample Date	10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)	Units	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
					RES Q																													
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		*1,200*		*1,500*		*440*		*130*		*18*		*22*		*45*		*47*		*710*		*600*		*890*		*11*		*7.9*		*9.4*		*25*		*19*	
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		**100**	**U**	**92**	**U**	***8.3***	***Ja***	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	**100**	**U**	**93**	**U**	**85**	**U**	5.3	U	5.2	U	4.9	U	5	U	4.5	U
1,1-Dichloroethene	7,800,000	1,300,000	23,000	**		100	U	*170*		*310*		*32*		5.3	U	5.1	U	*7.3*		5.7	U	*130*		*100*		*180*		5.3	U	5.2	U	4.9	U	5	U	*3.4*	*Ja*
1,1-Dichloroethene	700,000	1,500,000	60	**		**100**	**U**	**92**	**U**	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	**100**	**U**	**93**	**U**	**85**	**U**	5.3	U	5.2	U	4.9	U	5	U	4.5	U
1,2-Dichloroethane	7,000	400	20	**		**100**	**U**	**92**	**U**	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	**100**	**U**	**93**	**U**	**85**	**U**	5.3	U	5.2	U	4.9	U	5	U	4.5	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		*300*		*450*		*200*		*78*		*5.1*	*Ja*	*7.1*		*17*		*10*		*310*		*240*		*380*		*3.4*	*Ja*	5.2	U	4.9	U	*5.1*		*6.2*	
1,2-Dichloropropane	9,000	15,000	30	**		**100**	**U**	**92**	**U**	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	**100**	**U**	**93**	**U**	**85**	**U**	5.3	U	5.2	U	4.9	U	5	U	4.5	U
2-Butanone (MEK)	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
2-Hexanone	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Acetone	7,800,000	100,000,000	16,000	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	*17*		4.5	U
Benzene	12,000	800	30	**		25	U	23	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	25	U	23	U	21	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Bromodichloromethane	10,000	3,000,000	600	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	9.3	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Bromoform	81,000	53,000	800	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Bromomethane	110,000	10,000	200	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Carbon disulfide	7,800,000	720,000	32,000	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Carbon tetrachloride	5,000	300	70	**		**100**	**U**	**92**	**U**	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	**100**	**U**	**93**	**U**	**85**	**U**	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Chlorobenzene	1,600,000	130,000	1,000	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Chloroethane	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Chloroform	100,000	300	600	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Chloromethane	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
cis-1,3-Dichloropropene	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Ethylbenzene	7,800,000	400,000	13,000	**		25	U	23	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	25	U	23	U	21	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Methylene chloride	85,000	13,000	20	**		**100**	**U**	**92**	**U**	*12*		*11*		*8.2*		5.1	U	*9.4*		5.7	U	**100**	**U**	**93**	**U**	**85**	**U**	5.3	U	5.2	U	4.9	U	5	U	*7.5*	
Styrene	16,000,000	1,500,000	4,000	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Tetrachloroethene	12,000	11,000	60	**		*5,100*		*4,400*		*580*		*110*		*51*		*46*		*100*		*120*		*1,600*		*1400*		*1,400*		*40*		*29*		*35*		*67*		*53*	
Toluene	16,000,000	650,000	12,000	**		25	U	23	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	25	U	23	U	21	U	5.3	U	5.2	U	4.9	U	*6.3*		4.5	U
trans-1,3-Dichloropropene	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Trichloroethene	58,000	5,000	60	**		*300*		*310*		*120*		*13*		*2.7*	*Ja*	*3.1*	*Ja*	*6.6*		*7.1*		*100*		*91*		*110*		5.3	U	5.2	U	4.9	U	5	U	*3*	*Ja*
Vinyl chloride	460	280	10	**		**100**	**U**	**92**	**U**	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	**100**	**U**	**93**	**U**	**85**	**U**	5.3	U	5.2	U	4.9	U	5	U	4.5	U
Xylenes (total)	160,000,000	320,000	150,000	**		75	U	69	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	75	U	70	U	64	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U
DRO/JP-4						4,600	U*	5,100	U*	4,700	U*	4,600	U*	4,300	U*	4,300	U*	4,300	U*	4,300	U*	4,700	U*	4.4	U*	5,200	U*	4,200	U*	4,300	U*	4,200	U*	4,300	U*	4,300	U*
			ug/L			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Arsenic,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Barium,TCLP			2,000			*330*	*B*	*840*	*B*	*790*	*B*	*530*	*B*	*530*	*B*	*120*	*B*	*450*	*B*	*310*	*B*	*350*	*B*	*350*	*B*	*460*	*B*	*360*	*B*	*370*	*B*	*360*	*B*	*380*	*B*	*370*	*B*
Cadmium,TCLP			5			*7*		5	U	5	U	5	U	5	U	5	U	5	U	*160*		*90*		*140*		*2*	*B*	5	U	5	U	5	U	5	U	5	U
Chromium,TCLP			100			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Lead,TCLP			7.5			*5.5*	*B*	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U
Mercury,TCLP			2			2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Selenium,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Silver,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U

See endnotes for analytical qualifier explanation.

TABLE 5.1
SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)
(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, IL
S5

Analyte	ROD - Preliminary Remedation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location	SB-S5 2-4'		SB-S5 4-6'		SB-S5 6-8'		SB-S5 8-10'		SB-S5 10-12'		SB-S5 12-14'		SB-S5 14-16'		SB-S5 16-18'		SB-S5 18-20'		SB-S5 20-22'		SB-S5 22-24'		SB-S5 24-26'		SB-S5 26-28'		SB-S5 28-30'		SB-S5 30-32'	
					Depth																												
					Sample Date	10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)	Units	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
					RES Q																												
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		*230*		*860*		*130*		*18*	*H*	100	U	*23*	*H*	*22*	*H*	*35*		*250*		*300*		*23*	*H*	*12*	*H*	*21*	*H*	*20*	*H*	*24*	*H*
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		**90**	**U**	**85**	**U**	**77**	**U**	5	U	**100**	**U**	4.5	U	4.9	U	5.2	U	**91**	**U**	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	*55*		*3.4*	*Ja*	4.9	U	*5.3*		*3.9*	*Ja*	4.8	U
1,1-Dichloroethene	700,000	1,500,000	60	**		**90**	**U**	**85**	**U**	**77**	**U**	5	U	**100**	**U**	4.5	U	4.9	U	5.2	U	**91**	**U**	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
1,2-Dichloroethane	7,000	400	20	**		**90**	**U**	**85**	**U**	**77**	**U**	5	U	**100**	**U**	4.5	U	4.9	U	5.2	U	**91**	**U**	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		90	U	*97*		77	U	*4.3*	*Ja*	100	U	*7.1*		*5.6*		*6.9*		*110*		*130*		*7.5*		4.9	U	*11*		*7.9*		*9.2*	
1,2-Dichloropropane	9,000	15,000	30	**		**90**	**U**	**85**	**U**	**77**	**U**	5	U	**100**	**U**	4.5	U	4.9	U	5.2	U	**91**	**U**	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
2-Butanone (MEK)	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
2-Hexanone	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Acetone	7,800,000	100,000,000	16,000	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	*6.8*		4.9	U	5	U	*4*	*Ja*	4.8	U
Benzene	12,000	800	30	**		23	U	21	U	19	U	5	U	25	U	4.5	U	4.9	U	5.2	U	23	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Bromodichloromethane	10,000	3,000,000	600	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Bromoform	81,000	53,000	800	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Bromomethane	110,000	10,000	200	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Carbon disulfide	7,800,000	720,000	32,000	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Carbon tetrachloride	5,000	300	70	**		**90**	**U**	**85**	**U**	**77**	**U**	5	U	**100**	**U**	4.5	U	4.9	U	5.2	U	**91**	**U**	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Chlorobenzene	1,600,000	130,000	1,000	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Chloroethane	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Chloroform	100,000	300	600	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Chloromethane	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
cis-1,3-Dichloropropene	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Ethylbenzene	7,800,000	400,000	13,000	**		23	U	21	U	19	U	5	U	25	U	4.5	U	4.9	U	5.2	U	23	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Methylene chloride	85,000	13,000	20	**		**90**	**U**	**85**	**U**	**77**	**U**	*13*		**100**	**U**	*5.5*		*4.9*		*11*		**91**	**U**	5	U	*12*		*7.2*		5	U	4.7	U	*6.6*	
Styrene	16,000,000	1,500,000	4,000	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Tetrachloroethene	12,000	11,000	60	**		*1,700*		*8,100*		*2,500*		*930*		*1,600*		*100*		*120*		*170*		*1,100*		*890*		*58*		*45*		*58*		*51*		*55*	
Toluene	16,000,000	650,000	12,000	**		23	U	21	U	19	U	5	U	25	U	4.5	U	4.9	U	5.2	U	23	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
trans-1,3-Dichloropropene	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	5.2	U	91	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Trichloroethene	58,000	5,000	60	**		**90**	**U**	*190*		**77**	**U**	*5.7*		**100**	**U**	*5.7*		*5.6*		*8.2*		*67*	*Ja*	*54*		5	U	4.9	U	5	U	4.7	U	4.8	U
Vinyl chloride	460	280	10	**		**90**	**U**	**85**	**U**	**77**	**U**	5	U	**100**	**U**	4.5	U	4.9	U	5.2	U	**91**	**U**	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
Xylenes (total)	160,000,000	320,000	150,000	**		68	U	64	U	57	U	5	U	76	U	4.5	U	4.9	U	5.2	U	68	U	5	U	5	U	4.9	U	5	U	4.7	U	4.8	U
DRO/JP-4						5,100	U	4,900	U	4,400	U	4,300	U	4,300	Ua	4,200	U	4,300	U	4,300	Ua	4,600	U	5,000	U	4,300	U	4,200	U	4,500	U	4,300	U	4,200	U
			ug/L			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Arsenic,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Barium,TCLP			2,000			*930*	*B*	*930*		*910*	*B*	*680*	*B*	*530*	*B*	*430*	*B*	*490*	*B*	*450*	*B*	*560*	*B*	*470*	*B*	*470*	*B*	*460*	*B*	*430*	*B*	*440*	*B*	*390*	*B*
Cadmium,TCLP			5			*3900*		*3*	*B*	*7*		*120*		*310*		*310*		*58*		*48*		*140*		*150*		*8*		*20*		*18*		5	U	5	U
Chromium,TCLP			100			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Lead,TCLP			7.5			7.5	U	*22*		*12*		*43*		*6.3*	*B*	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U
Mercury,TCLP			2			2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Selenium,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Silver,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U

See endnotes for analytical qualifier explanation.

TABLE 5.1
SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)
(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, IL
S6

Analyte	ROD - Preliminary Remedation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location	SB-S6		SB-S6		SB-S6		SB-S6		SB-S6		SB-S6		SB-S6		SB-S6		SB-S6		SB-S6		SB-S6		SB-S6		SB-S6		SB-S6		SB-S6	
					Depth	0-2'		2-4'		4-6'		6-8'		8-10'		10-12'		12-14'		14-16'		16-18'		18-20'		20-22'		22-24'		24-26'		26-28'		28-30'		30-32'	
					Sample Date	10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003		10/29/2003	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)	Units	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
					RES Q																													
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		*11*		*67*		*77*		*8*		*7.4*		*15*		*18*		*11*		*21*		*12*		*7.5*		*7.9*		*8.6*		*13*		*9.9*		*9.3*	
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		5	U	*8.9*		*18*		5.2	U	5	U	4.9	U	*4.2*	*Ja*	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
1,1-Dichloroethene	700,000	1,500,000	60	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
1,2-Dichloroethane	7,000	400	20	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		5	U	4.7	U	*11*		5.2	U	5	U	4.9	U	*3.3*	*Ja*	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
1,2-Dichloropropane	9,000	15,000	30	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
2-Butanone (MEK)	NL	NL	NL	NL		5	U	4.7	U	4.4	U	5.2	U	*5.7*		*6.1*	*H*	*6.9*		5.1	U	*6.8*		*6.6*		5	U	5.3	U	*6.7*		*6.3*		*4.9*		*6.6*	
2-Hexanone	NL	NL	NL	NL		5	U	4.7	U*	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		5	U	4.7	U*	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Acetone	7,800,000	100,000,000	16,000	**		*49*		4.7	U	*59*		*43*		*34*		*23*		*34*		*19*		*27*		*28*		*16*		*15*		*24*		*26*		*22*		*25*	
Benzene	12,000	800	30	**		5	U	4.7	U	4.4	U	5.2	U	5	U	*3.2*	*Ja*	4.4	U	*3.4*	*Ja*	*3*	*Ja*	*3.8*	*Ja*	*3.9*	*Ja*	*3.4*	*Ja*	5	U	5.4	U	*2.5*	*Ja*	5.1	U
Bromodichloromethane	10,000	3,000,000	600	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Bromoform	81,000	53,000	800	**		5	U	4.7	U*	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Bromomethane	110,000	10,000	200	**		5	U	4.7	U*	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Carbon disulfide	7,800,000	720,000	32,000	**		5	U	*9.4*		4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Carbon tetrachloride	5,000	300	70	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Chlorobenzene	1,600,000	130,000	1,000	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Chloroethane	NL	NL	NL	NL		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Chloroform	100,000	300	600	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Chloromethane	NL	NL	NL	NL		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
cis-1,3-Dichloropropene	NL	NL	NL	NL		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Ethylbenzene	7,800,000	400,000	13,000	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Methylene chloride	85,000	13,000	20	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Styrene	16,000,000	1,500,000	4,000	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Tetrachloroethene	12,000	11,000	60	**		*44*		*140*		*80*		*6.8*		*13*		*21*		*21*		*20*		*41*		*24*		*20*		*19*		*21*		*30*		*19*		*22*	
Toluene	16,000,000	650,000	12,000	**		5	U	4.7	U	4.4	U	5.2	U	*7.9*		*8.9*		*7.1*		*9.2*		*8.1*		*10*		*9.8*		*8.6*		*7.8*		*8.2*		*6.5*		*8.3*	
trans-1,3-Dichloropropene	NL	NL	NL	NL		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Trichloroethene	58,000	5,000	60	**		5	U	4.7	U	*3.8*	*Ja*	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Vinyl chloride	460	280	10	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
Xylenes (total)	160,000,000	320,000	150,000	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U	5.3	U	5	U	5.4	U	4.2	U	5.1	U
DRO/JP-4						5,000	U*	5,000	U*	4,600	U*	4,400	U*	4,300	U*	4,300	U*	4,300	U*	4,200	U*	4,300	U*	4,700	U*	4,300	U*	4,400	U*	4,300	U*	4,300	U*	4,200	U*	4,200	U*
			ug/L			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Arsenic,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Barium,TCLP			2,000			*390*	*B*	*810*	*B*	*810*		*540*	*B*	*390*	*B*	*390*	*B*	*400*	*B*	*360*	*B*	*450*	*B*	*380*	*B*	*370*	*B*	*330*	*B*	*330*	*B*	*320*	*B*	*420*	*B*	*460*	*B*
Cadmium,TCLP			5			5	U	*8*		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chromium,TCLP			100			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Lead,TCLP			7.5			7.5	U	*110*		7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U
Mercury,TCLP			2			2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	*2.3*		2	U	2	U	2	U	2	U
Selenium,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Silver,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U

See endnotes for analytical qualifier explanation.

SECOR

TABLE 5.1
SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)
(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, IL
S7

Analyte	ROD - Preliminary Remedation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location	SB-S7 2-4'		SBD-S7 2-4'		SB-S7 4-6'		SB-S7 6-8'		SB-S7 8-10'		SB-S7 10-12'		SB-S7 12-14'		SB-S7 14-16'		SB-S7 16-18'		SB-S7 18-20'		SB-S7 20-22'		SB-S7 22-24'		SB-S7 24-26'		SBD-S7 24-26'		SB-S7 26-28'		SB-S7 28-30'		SB-S7 30-32'	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)	Depth	2-4'		2-4'		4-6'		6-8'		8-10'		10-12'		12-14'		14-16'		16-18'		18-20'		20-22'		22-24'		24-26'		24-26'		26-28'		28-30'		30-32'	
					Sample Date	10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003	
					Units	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
					RES Q																																
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		*12,000*		*4400*		*130*		*15*		*14*		*50*		*14*		*6.8*		*11*		*210*		*6.8*		*18*	*H*	*7.2*		*10*		*7.7*	*H*	*14*	*H*	*19*	*H*
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		95	U	110	U	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		**95**	**U**	**110**	**U**	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		*370*		*130*		*20*		4.7	U	5.3	U	*5.4*		5	U	5.2	U	5.3	U	*48*		5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
1,1-Dichloroethene	700,000	1,500,000	60	**		**95**	**U**	**110**	**U**	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
1,2-Dichloroethane	7,000	400	20	**		**95**	**U**	**110**	**U**	5.8	U*	4.7	U*	5.3	U*	5.3	U*	5	U	5.2	U*	5.3	U*	5.4	U	5.2	U*	5.5	U	5.3	U*	5.2	U*	5.4	U	5.3	U	5.2	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		*220*		*94*	*J*	*23*		*3.3*	*Ja*	5.3	U	*6.3*		5	U	5.2	U	5.3	U	*52*		5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	*3.8*	*Ja*
1,2-Dichloropropane	9,000	15,000	30	**		**95**	**U**	**110**	**U**	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
2-Butanone (MEK)	NL	NL	NL	NL		95	U	110	U	5.8	U*	4.7	U*	5.3	U*	5.3	U*	5	U	5.2	U*	5.3	U*	5.4	U	5.2	U*	5.5	U	5.3	U*	5.2	U*	5.4	U	5.3	U	5.2	U
2-Hexanone	NL	NL	NL	NL		95	U	110	U	5.8	U	4.7	U	5.3	U	5.3	U	5	U*	5.2	U	5.3	U	5.4	U*	5.2	U	5.5	U*	5.3	U	5.2	U	5.4	U*	5.3	U*	5.2	U*
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		95	U	110	U	5.8	U*	4.7	U*	5.3	U*	5.3	U*	5	U*	5.2	U*	5.3	U*	5.4	U*	5.2	U*	5.5	U*	4.3	U*	5.2	U*	5.4	U*	5.3	U*	5.2	U*
Acetone	7,800,000	100,000,000	16,000	**		95	U	110	U	*71*	*	*44*	*	*36*	*	*25*	*	*10*		5.2	U*	5.3	U*	5.4	U	*18*	*	*13*		*14*	*	*20*	*	*14*		*17*		*20*	
Benzene	12,000	800	30	**		24	U	29	U	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	*5.2*	*Ja*	5.2	U	5.5	U	3.4	U	5.2	U	5.4	U	5.3	U	5.2	U
Bromodichloromethane	10,000	3,000,000	600	**		95	U	110	U	5.8	U*	4.7	U*	5.3	U*	5.3	U*	5	U	5.2	U*	5.3	U*	5.4	U	5.2	U*	5.5	U	5.3	U*	5.2	U*	5.4	U	5.3	U	5.2	U
Bromoform	81,000	53,000	800	**		95	U	110	U	5.8	U	4.7	U	5.3	U	5.3	U	5	U*	5.2	U	5.3	U	5.4	U*	5.2	U	5.5	U*	5.3	U	5.2	U	5.4	U*	5.3	U*	5.2	U*
Bromomethane	110,000	10,000	200	**		95	U	110	U	5.8	U	4.7	U	5.3	U	5.3	U	5	U*	5.2	U	5.3	U	5.4	U*	5.2	U	5.5	U*	5.3	U	5.2	U	5.4	U*	5.3	U*	5.2	U*
Carbon disulfide	7,800,000	720,000	32,000	**		95	U	110	U	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
Carbon tetrachloride	5,000	300	70	**		**95**	**U**	**110**	**U**	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
Chlorobenzene	1,600,000	130,000	1,000	**		95	U	110	U	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
Chloroethane	NL	NL	NL	NL		95	U	110	U	5.8	U*	4.7	U*	5.3	U*	5.3	U*	5	U	5.2	U*	5.3	U*	5.4	U	5.2	U*	5.5	U	5.3	U*	5.2	U*	5.4	U	5.3	U	5.2	U
Chloroform	100,000	300	600	**		95	U	110	U	5.8	U*	4.7	U*	5.3	U*	5.3	U*	5	U	5.2	U*	5.3	U*	5.4	U	5.2	U*	5.5	U	5.3	U*	5.2	U*	5.4	U	5.3	U	5.2	U
Chloromethane	NL	NL	NL	NL		95	U	110	U	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
cis-1,3-Dichloropropene	NL	NL	NL	NL		95	U	110	U	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
Ethylbenzene	7,800,000	400,000	13,000	**		24	U	29	U	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
Methylene chloride	85,000	13,000	20	**		**95**	**U**	**110**	**U**	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	*11*		5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
Styrene	16,000,000	1,500,000	4,000	**		95	U	110	U	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
Tetrachloroethene	12,000	11,000	60	**		*49,000*		*17,000*		*84*		*18*		*28*		*60*		*34*		*30*		*47*		*590*		*16*		*42*		*25*		*24*		*24*		*34*		*40*	
Toluene	16,000,000	650,000	12,000	**		24	U	29	U	5.8	U	4.7	U	5.3	U	5.3	U	*7.4*		5.2	U	5.3	U	*9.7*		*6.7*		*7.6*		*8.5*		*6.5*		*7.3*		*7.2*		*7.5*	*H*
trans-1,3-Dichloropropene	NL	NL	NL	NL		95	U	110	U	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
Trichloroethene	58,000	5,000	60	**		*670*		*270*		*6*		4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	*15*		5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
Vinyl chloride	460	280	10	**		**95**	**U**	**110**	**U**	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
Xylenes (total)	160,000,000	320,000	150,000	**		71	U	86	U	5.8	U	4.7	U	5.3	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U
DRO/JP-4						4,900	U	4,900	U	4,900	U	4,400	U	4,400	U	4,400	U	4,200	U	4,300	U	4,300	U	5,000	U	4,200	U	4,300	U	4,200	U	4,200	U	4,200	U	4,500	U	4,200	U
			ug/L			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Arsenic,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Barium,TCLP			2,000			*460*		*510*		*690*	*B*	*610*	*B*	*530*	*B*	*650*	*B*	*420*	*B*	*130*	*B*	*130*	*B*	*390*	*B*	*410*	*B*	*340*	*B*	*420*	*B*	*330*	*B*	*360*	*B*	*350*	*B*	*380*	*B*
Cadmium,TCLP			5			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chromium,TCLP			100			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Lead,TCLP			7.5			*28*		*7.5*		7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U
Mercury,TCLP			2			2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Selenium,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Silver,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U

See endnotes for analytical qualifier explanation.

TABLE 5.1
SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)
(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, IL
S8

SECOR

Analyte	ROD - Preliminary Remedation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location	SB-S8		SB-S8		SB-S8		SB-S8		SBD-S8		SB-S8		SB-S8		SB-S8		SB-S8		SBD-S8		SB-S8		SB-S8		SB-S8		SB-S8		SB-S8	
					Depth	2-4'		4-6'		6-8'		8-10'		8-10'		10-12'		12-14'		14-16'		16-18'		18-20'		18-20'		20-22'		22-24'		24-26'		26-28'		28-30'		30-32'	
					Sample Date	10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003		10/30/2003	
	Soil Ingestion	Soil Inhalation	Soil Component of Groundwater Class 1	ADL	Units	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	RES Q																														
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		*500*		*120*		*31*		*10*		*7.8*		*24*		*8.3*		*12*		*11*		*48*		*110*		*16*		*23*		*6.2*		*26*		*7.8*		*8.9*	
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		**92**	**U**	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		92	U	*13*		*3.9*	*Ja*	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	*3.9*	*Ja*	5.2	U	5.3	U	*2.9*	*Ja*	5.1	U	5.2	U
1,1-Dichloroethene	700,000	1,500,000	60	**		**92**	**U**	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
1,2-Dichloroethane	7,000	400	20	**		**92**	**U**	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		92	U	*21*		*6.8*		5.1	U	4.8	U	*4.5*		4.9	U	5	U	5.2	U	*13*		*28*		*7*		*3.2*	*Ja*	5.3	U	*6*		5.1	U	5.2	U
1,2-Dichloropropane	9,000	15,000	30	**		**92**	**U**	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
2-Butanone (MEK)	NL	NL	NL	NL		92	U	*5.3*		*4.8*		5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
2-Hexanone	NL	NL	NL	NL		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Acetone	7,800,000	100,000,000	16,000	**		92	U	*52*		*30*		5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Benzene	12,000	800	30	**		23	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	3.0	J	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Bromodichloromethane	10,000	3,000,000	600	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Bromoform	81,000	53,000	800	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Bromomethane	110,000	10,000	200	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Carbon disulfide	7,800,000	720,000	32,000	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Carbon tetrachloride	5,000	300	70	**		**92**	**U**	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Chlorobenzene	1,600,000	130,000	1,000	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Chloroethane	NL	NL	NL	NL		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Chloroform	100,000	300	600	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Chloromethane	NL	NL	NL	NL		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
cis-1,3-Dichloropropene	NL	NL	NL	NL		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Ethylbenzene	7,800,000	400,000	13,000	**		23	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Methylene chloride	85,000	13,000	20	**		**92**	**U**	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Styrene	16,000,000	1,500,000	4,000	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Tetrachloroethene	12,000	11,000	60	**		*2,800*		*150*		*39*		*38*		*29*		*57*		*32*		*53*		*46*		*110*		*630*		*45*		*72*		*25*		*65*		*30*		*33*	
Toluene	16,000,000	650,000	12,000	**		23	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	*6.1*		4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
trans-1,3-Dichloropropene	NL	NL	NL	NL		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Trichloroethene	58,000	5,000	60	**		*110*		*12*		*3*	*Ja*	5.1	U	4.8	U	*3.9*	*Ja*	4.9	U	5	U	5.2	U	*7.2*		*13*		*2.7*	*Ja*	*3.7*	*Ja*	5.3	U	*4.2*	*Ja*	5.1	U	5.2	U
Vinyl chloride	460	280	10	**		**92**	**U**	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Xylenes (total)	160,000,000	320,000	150,000	**		69	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
DRO/JP-4						5,000	U	4,800	U	4,700	U	4,200	U	4,300	U	4,400	U	4,300	U	4,300	U	4,300	U	5,000	U	4200	U	4,200	U	4,300	U	4,400	U	4,300	U	4,400	U	4,200	U
			ug/L			ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Arsenic,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Barium,TCLP			2,000			*380*		*890*	*B*	*620*	*B*	*390*	*B*	*430*	*B*	*390*	*B*	*530*	*B*	*200*	*B*	*410*	*B*	*390*	*B*	*350*	*B*	*140*	*B*	*440*	*B*	*410*	*B*	*390*	*B*	*380*	*B*	*460*	*B*
Cadmium,TCLP			5			*20*		*12*		*4*	*B*	5	U	5	U	5	U	5	U	*4*	*B*	5	U	*47*		5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chromium,TCLP			100			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Lead,TCLP			7.5			7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U
Mercury,TCLP			2			2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Selenium,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Silver,TCLP			50			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U

See endnotes for analytical qualifier explanation.

TABLE 5.1
SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)
(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, IL
ENDNOTES

Analytical Table Notes:

Sample Collection Method
SB - Soil Boring
GW - Groundwater

General Abbreviations and Symbols
NL - Not Listed
Res - Result or Reporting Limit
RO - Remediation Objective
Q - Qualifier
** - Less than or equal to specified RO

Data Presentation

0.005	U	Not detected at specified Reporting Limit
0.005	**U**	(Bold) Detection limit above lowest specified RO
0.005		(Bold, Italic) Indicates compound detected but below lowest specified RO
0.005		(Bold, Italic, Shaded) Indicates compound detected above lowest specified RO
		(Blank) Indicates no analytical data for compound

Analytical Data Qualifiers
B - (Metals) Results less than reporting limit but greater than or equal to Method Detection Limit
E - Result exceeds calibration range, secondary dilution required
U - Not Detected
J - Estimated value below the Reporting Limit
a - Concentration is below the Method Reporting Limit
* - Batch QC exceeded the upper or lower control limits
H - Result based on an alternative peak selection upon analytical review
M - Manually Integrated Compound
- Concentration above Background Level but below lowest RO

SECOR

TABLE 5.2
SOIL ANALYTICAL RESULTS - HS PLANT #1 AND OFFSITE PROPERTIES-
VOCs and DRO/JP-4
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS
S9 - S15 and SMW SAMPLES

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location	SB-S9		SB-S9		SB-S9		SB-S10		SB-S10		SB-S11		SB-S11		SB-S12		SB-S12		SB-S13		SB-S13		SB-S14		SB-S14		SBD-S14		SB-S15		SB-S15		SB-SMW-1		SB-SMW-1	
					Depth	8-10'		17.5-18.5'		26-28'		10-11'		22-23'		10-12'		26-28'		2-4'		26-28'		2-4'		24-26'		8-10'		24-26'		24-26'		10-12'		22-24'		10-12'		28-30'	
					Sample Date	10/27/2003		11/12/2003		10/27/2003		11/12/2003		11/12/2003		10/27/2003		10/27/2003		10/27/2003		10/27/2003		10/27/2003		10/27/2003		10/27/2003		10/27/2003		10/27/2003		3/8/2004		3/8/2004		10/22/2003		10/22/2003	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)	Units RES	Q	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
1,1,1-Trichloroethane	NL	1,200,000	2,000	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	***48***		4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U*	5.1	U*	4.8	U	4.8	U
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	**96**	**U**	5	U	**96**	**U**	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U*	5.1	U*	4.8	U	4.8	U
1,1-Dichloroethene	*700,000*	*1,500,000*	60	**			4.8	U	5.1	U	5.1	U	4.4	U	*5*	U	*5*	U	4.6	U	4.8	U	4.8	U	**96**	***U***	*5*	U	**96**	***U***	*5.1*	*U*	4.9	U	4.5	*U*	*5.1*	U	4.8	U	4.8	U
1,2-Dichloroethane	7,000	400	20	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	**96**	**U**	5	U	**96**	**U**	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
1,2-Dichloroethene (total)	NL	NL	NL	NL			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
1,2-Dichloropropane	9,000	15,000	30	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	**96**	**U**	5	U	**96**	**U**	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
2-Butanone (MEK)	NL	NL	NL	NL			4.8	U	*6*		5.1	U	***9.1***		***5.2***		5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
2-Hexanone	NL	NL	NL	NL			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
Acetone	7,800,000	100,000,000	16,000	**			***9.3***		***19***		***16***		***32***		***19***		***19***		4.6	U	***13***		***15***		96	U	***28***	***M***	96	U	***15***		***14***		4.5	U	5.1	U	***17***	***B***	***18***	***B***
Benzene	12,000	800	30	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	***3.4***	***Ja***	24	U	5	U	24	U	3.0	U	4.9	U	4.5	U	5.1	U	4.8	U	***3***	***Ja***
Bromodichloromethane	10,000	3,000,000	600	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
Bromoform	81,000	53,000	800	**			4.8	U	5.1	U*	5.1	U	4.4	U*	5	U*	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
Bromomethane	110,000	10,000	200	**			4.8	U	5.1	U*	5.1	U	4.4	U*	5	U*	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
Carbon disulfide	7,800,000	720,000	32,000	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U*	5.1	U*	4.8	U	4.8	U
Carbon tetrachloride	5,000	300	70	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	**96**	**U**	5	U	**96**	**U**	5.1	U	4.9	U	4.5	U*	5.1	U*	4.8	U	4.8	U
Chlorobenzene	1,600,000	130,000	1,000	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
Chloroethane	NL	NL	NL	NL			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
Chloroform	100,000	300	600	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U*	5.1	U*	4.8	U	4.8	U
Chloromethane	NL	NL	NL	NL			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
cis-1,3-Dichloropropene	NL	NL	NL	NL			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
Ethylbenzene	7,800,000	400,000	13,000	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	***2.7***	***Ja***	24	U	5	U	24	U	*2.8*	*Ja*	4.9	U	4.5	U	5.1	U	***2.4***	***Ja***	***2.9***	***Ja***
Methylene chloride	85,000	13,000	20	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	***130***		5	U	***140***		5.1	U	4.9	U	***5.7***		***6.8***		4.8	U	4.8	U
Styrene	16,000,000	1,500,000	4,000	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
Tetrachloroethene	12,000	11,000	60	**			4.8	U	***5.7***		***6.8***		***24***		***4.6***	***Ja***	***40***		***49***		***29,000***		***27***		***1,500***		***11***		***96***	***U***	***5.4***		***5.8***		4.5	U	5.1	U	4.8	U	4.8	U
Toluene	16,000,000	650,000	12,000	**			***7.5***		***9.6***		***8***		***7.6***		***9.7***		***7.5***		***7***	***H***	4.8	U	***7.9***		24	U	***3.9***	***Ja***	24	U	***7.8***		***7.1***		4.5	U	5.1	U	***6.5***		***7.3***	
trans-1,3-Dichloropropene	NL	NL	NL	NL			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	96	U	5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
Trichloroethene	58,000	5,000	60	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	***27***		4.8	U	***180***		5	U	96	U	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
Vinyl chloride	460	280	10	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	**96**	**U**	5	U	**96**	**U**	5.1	U	4.9	U	4.5	U	5.1	U	4.8	U	4.8	U
Xylenes (total)	160,000,000	320,000	150,000	**			4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	***3.6***	***Ja***	72	U	5	U	72	U	*3.7*	*Ja*	4.9	U	4.5	U	5.1	U	***3.3***	***Ja***	***3.8***	***Ja***
DRO/JP-4							4,300	U	4,300	U	4,300	U	4,300	U	4,400	U	4,300	U	4,300	U	4,700	U	4,400	U	5,100	U	4,400	U	4,500	U	4,400	U	4,400	U	4,300		4,300	U	4,200	U	4,200	U

See Endnotes for analytical qualifier explanation.

02072.02t02

SECOR

TABLE 5.2
SOIL ANALYTICAL RESULTS - HS PLANT #1 AND OFFSITE PROPERTIES-
VOCs and DRO/JP-4
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS
S9 - S15 and SMW SAMPLES

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location	SB-SMW-2		SB-SMW-2		SB-SMW-4		SB-SMW-4		SB-SMW-5		SB-SMW-5		SB-SMW-6		SB-SMW-6		SB-SMW-7		SB-SMW-7		SB-SMW-8		SB-SMW-8		SE-SMW-10		SB-SMW-10		SB-SMW-10		SB-SMW-12		SB-SMW-12	
					Depth	9-11'		27-29'		5-7'		27-29'		5-7'		27-29'		12-14'		25-27'		10-12'		24-25'		9-11'		29-31'		5-7'		10-12'		24-25'		2-3'		27-28'	
					Sample Date	10/21/2003		10/21/2003		10/23/2003		10/23/2003		10/23/2003		10/23/2003		3/8/2004		3/8/2004		3/9/2004		3/9/2004		10/25/2003		10/25/2003		3/4/2004		3/4/2004		3/4/2004		11/5/2003		11/5/2003	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)	Units RES	ug/kg	Q	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		5	U	4.6	U	4.3	U	5.1	U	*9.7*		5	U	5	U	5.2	U*	5	U*	4.9	U*	5.2	U	*2.7*	*Ja*	*4.3*	*Ja*	4.5	U	5.4	U	7.5	U	5.1	U
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U*	5	U*	4.9	U*	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
1,1-Dichloroethene	700,000	1,500,000	60	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
1,2-Dichloroethane	7,000	400	20	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	*5.1*		4.5	U	5.4	U	7.5	U	5.1	U
1,2-Dichloropropane	9,000	15,000	30	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
2-Butanone (MEK)	NL	NL	NL	NL		5	U	4.6	U	*5*		*5.6*		*3.9*	*Ua*	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	*4.6*	*Ja*	4.5	U	5.4	U	7.5	U	*6.7*	
2-Hexanone	NL	NL	NL	NL		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	*2.4*	*Ja*	5.4	U	7.5	U	5.1	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Acetone	7,800,000	100,000,000	16,000	**		*17*	*B*	*14*	*B*	*43*	*B*	*29*	*B*	*21*	*B*	*10*	*B*	*18*	*M*	5.2	U	5	U	4.9	U	*16*		*16*		*54*		*19*	*M*	*12*		*18*		*28*	
Benzene	12,000	800	30	**		*3*	*Ja*	*2.4*	*Ja*	4.3	U	5.1	U	3.9	U	*2.8*	*Ja*	*2.7*	*Ja*	5.2	U	5	U	4.9	U	*2.7*	*Ja*	*2.5*	*Ja*	4.7	U	*3.5*	*Ja*	*3*	*Ja*	7.5	U	5.1	U
Bromodichloromethane	10,000	3,000,000	600	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Bromoform	81,000	53,000	800	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U*
Bromomethane	110,000	10,000	200	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U*
Carbon disulfide	7,800,000	720,000	32,000	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U*	5	U*	4.9	U*	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Carbon tetrachloride	5,000	300	70	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U*	5	U*	4.9	U*	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Chlorobenzene	1,600,000	130,000	1,000	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Chloroethane	NL	NL	NL	NL		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Chloroform	100,000	300	600	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U*	5	U*	4.9	U*	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Chloromethane	NL	NL	NL	NL		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
cis-1,3-Dichloropropene	NL	NL	NL	NL		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Ethylbenzene	7,800,000	400,000	13,000	**		*2.7*	*Ja*	*2.7*	*Ja*	4.3	U	5.1	U	3.9	U	*2.9*	*Ja*	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	*2.4*	*Ja*	*2.8*	*Ja*	7.5	U	5.1	U
Methylene chloride	85,000	13,000	20	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	*5*		*4.1*	*Ja*	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Styrene	16,000,000	1,500,000	4,000	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Tetrachloroethene	12,000	11,000	60	**		5	U	4.6	U	4.3	U	5.1	U	*110*		5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	*6.3*		4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Toluene	16,000,000	650,000	12,000	**		*7.2*		*6.6*		4.3	U	*5.2*		3.9	U	*7.5*		*7.5*		5.2	U	5	U	4.9	U	*7.1*		*6.2*		4.7	U	*7.7*		*7.9*		7.5	U	*7.8*	
trans-1,3-Dichloropropene	NL	NL	NL	NL		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Trichloroethene	58,000	5,000	60	**		5	U	4.6	U	4.3	U	5.1	U	*9.4*		5	U	5	U	*3.1*	*Ja*	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Vinyl chloride	460	280	10	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Xylenes (total)	160,000,000	320,000	150,000	**		*3.6*	*Ja*	*3.4*	*Ja*	4.3	U	5.1	U	3.9	U	*3.6*	*Ja*	*3.7*	*Ja*	5.2	U	5	U	4.9	U	*3.4*	*Ja*	*3.2*	*Ja*	4.7	U	*3.6*	*Ja*	*4.1*	*Ja*	7.5	U	5.1	U
DRO/JP-4						4,300	U*	4,200	U	4,600	U	4,200	U	4,500	U	4,300	U	4,400	U	4,300	U	4,300	U	4,300	U	4,300	U	4,300	U	8,200		6,800		4,200	U	39,000		4,200	U

See Endnotes for analytical qualifier explanation.

02072.02t02

TABLE 5.2
SOIL ANALYTICAL RESULTS - HS PLANT #1 AND OFFSITE PROPERTIES-
VOCs and DRO/JP-4
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS
S9 - S15 and SMW SAMPLES

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location	SB-SMW-14		SB-SMW-14		SB-SMW-15		SB-SMW-15		SB-SMW16		SB-SMW16		SBD-SMW16		SB-SMW-16A		SB-SMW-16A		SB-SMW-17		SB-SMW-17		SB-SMW-18		SB-SMW-18		SB-SMW-18		SB-SMW-19		SB-SMW-19	
					Depth	6-7'		27-28'		3-5'		29-31'		2-4'		22-24'		22-24'		16-18'		24-26'		14-16'		26-28'		1-2'		12-14'		24-25'		8-10'		28-30'	
					Sample Date	11/5/2003		11/5/2003		10/24/2003		10/24/2003		3/3/2004		3/3/2004		3/3/2004		3/22/2004		3/22/2004		3/22/2004		3/22/2004		3/3/2004		3/3/2004		3/3/2004		11/3/2004		11/3/2004	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)	Units	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
					RES Q																														
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		4.6	U	4.9	U	*6.8*	*M*	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	*160*		*2.4*	*Ja*	5.5	U	6.4	U	4.9	U
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91,000	U	5.5	U	5.2	U	4.3	U	5	U	110,000	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		4.6	U	4.9	U	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		4.6	U	4.9	U	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	*13*		4.4	U	5.5	U	6.4	U	4.9	U
1,1-Dichloroethene	700,000	1,500,000	60	**		4.6	U	4.9	U	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
1,2-Dichloroethane	7,000	400	20	**		4.6	U	4.9	U	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91,000	U	5.5	U	5.2	U	4.3	U	5	U	110,000	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
1,2-Dichloropropane	9,000	15,000	30	**		4.6	U	4.9	U	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
2-Butanone (MEK)	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91,000	U	5.5	U	5.2	U	4.3	U	5	U	110,000	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
2-Hexanone	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91,000	U	5.5	U	5.2	U	4.3	U	5	U	110,000	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91,000	U	5.5	U	5.2	U	4.3	U	5	U	110,000	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Acetone	7,800,000	100,000,000	16,000	**		*52*		*20*		*24*	*B*	*14*	*B*	**180,000**	**U**	5.5	U	*6.1*		4.3	U	5	U	**220,000**	**U**	4.4	U	*27*	*M*	*6.2*		5.5	U	*19*		*20*	
Benzene	12,000	800	30	**		4.6	U	4.9	U	4.9	U	*2.6*	*Ja*	**23,000**	**U**	5.5	U	*2.7*	*Ja*	4.3	U	5	U	**27,000**	**U**	4.4	U	8.5	U	*5.3*		5.5	U	6.4	U	4.9	U
Bromodichloromethane	10,000	3,000,000	600	**		4.6	U	4.9	U	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Bromoform	81,000	53,000	800	**		4.6	U*	4.9	U*	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Bromomethane	110,000	10,000	200	**		4.6	U*	4.9	U*	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Carbon disulfide	7,800,000	720,000	32,000	**		4.6	U	4.9	U	*5.2*		4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	*5.5*	*Ja*	4.4	U	5.5	U	6.4	U	4.9	U
Carbon tetrachloride	5,000	300	70	**		4.6	U	4.9	U	4.9	U	*4.8*	*UM*	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Chlorobenzene	1,600,000	130,000	1,000	**		4.6	U	4.9	U	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Chloroethane	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91,000	U	5.5	U	5.2	U	4.3	U	5	U	110,000	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Chloroform	100,000	300	600	**		4.6	U	4.9	U	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Chloromethane	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91,000	U	5.5	U	5.2	U	4.3	U	5	U	110,000	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
cis-1,3-Dichloropropene	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91,000	U	5.5	U	5.2	U	4.3	U	5	U	110,000	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Ethylbenzene	7,800,000	400,000	13,000	**		4.6	U	4.9	U	4.9	U	*2.7*	*Ja*	**23,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**27,000**	**U**	4.4	U	8.5	U	*3.4*	*Ja*	5.5	U	6.4	U	4.9	U
Methylene chloride	85,000	13,000	20	**		4.6	U	4.9	U	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	8.5	U	4.4	U	5.5	U	*17*		*20*	
Styrene	16,000,000	1,500,000	4,000	**		4.6	U	4.9	U	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Tetrachloroethene	12,000	11,000	60	**		4.6	U	4.9	U	*550,000*		*20*		**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	*10*		4.4	U	5.5	U	6.4	U	4.9	U
Toluene	16,000,000	650,000	12,000	**		4.6	U	4.9	U	4.9	U	*7.3*	*M*	**23,000**	**U**	*6*		*7.3*		4.3	U	5	U	**27,000**	**U**	4.4	U	8.5	U	*11*		*6.1*		6.4	U	4.9	U
trans-1,3-Dichloropropene	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91,000	U	5.5	U	5.2	U	4.3	U	5	U	110,000	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Trichloroethene	58,000	5,000	60	**		4.6	U	4.9	U	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	*11*		4.4	U	5.5	U	*7.7*		4.9	U
Vinyl chloride	460	280	10	**		4.6	U	4.9	U	4.9	U	4.8	U	**91,000**	**U**	5.5	U	5.2	U	4.3	U	5	U	**110,000**	**U**	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Xylenes (total)	160,000,000	320,000	150,000	**		4.6	U	4.9	U	4.9	U	*3.6*	*Ja*	68,000	U	*5.5*	*Ua*	*5.2*	*Ua*	4.3	U	5	U	81,000	U	4.4	U	8.5	U	*4.5*		*5.5*	*Ua*	6.4	U	4.9	U
DRO/JP-4						4,600	U	4,500	U	4,800	U	4,100	U	4,900	U	4,300	U	4,300	U	4,400	U	4,200	U	4,800	U	4,400	U	5,000	U	4,400		4,300	U	22,000	U	4,200	U

See Endnotes for analytical qualifier explanation.

TABLE 5.2
SOIL ANALYTICAL RESULTS - HS PLANT #1 AND OFFSITE PROPERTIES-
VOCs and DRO/JP-4
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS
S9 - S15 and SMW SAMPLES

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location	SB-SMW-20		SB-SMW-20		SB-SMW-21		SB-SMW-21		SB-SMW-22		SB-SMW-22	
					Depth	8-10'		26-28'		10-12'		26-28'		8-10'		26-28'	
					Sample Date	11/2/2004		11/2/2004		11/2/2004		11/2/2004		11/2/2004		11/2/2004	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)	Units RES	ug/kg	Q	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
1,1-Dichloroethene	700,000	1,500,000	60	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
1,2-Dichloroethane	7,000	400	20	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
1,2-Dichloropropane	9,000	15,000	30	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
2-Butanone (MEK)	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
2-Hexanone	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Acetone	7,800,000	100,000,000	16,000	**		***22***		***10***		***31***		***21***		***17***		***9.3***	
Benzene	12,000	800	30	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Bromodichloromethane	10,000	3,000,000	600	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Bromoform	81,000	53,000	800	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Bromomethane	110,000	10,000	200	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Carbon disulfide	7,800,000	720,000	32,000	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Carbon tetrachloride	5,000	300	70	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Chlorobenzene	1,600,000	130,000	1,000	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Chloroethane	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Chloroform	100,000	300	600	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Chloromethane	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
cis-1,3-Dichloropropene	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Ethylbenzene	7,800,000	400,000	13,000	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Methylene chloride	85,000	13,000	20	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Styrene	16,000,000	1,500,000	4,000	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Tetrachloroethene	12,000	11,000	60	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Toluene	16,000,000	650,000	12,000	**		4.5	U	***6.2***		3.9	U	5.1	U	***5.1***	***H***	***5***	
trans-1,3-Dichloropropene	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Trichloroethene	58,000	5,000	60	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Vinyl chloride	460	280	10	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
Xylenes (total)	160,000,000	320,000	150,000	**		4.5	U	4.8	U	3.9	U	5.1	U	3.8	U	4.4	U
DRO/JP-4						4,300	U	4,100	U*	4,400	U*	4,400	U	4,200	U*	4,300	U

See Endnotes for analytical qualifier explanation.

TABLE 5.2
SOIL ANALYTICAL RESULTS - HS PLANT #1 AND OFFSITE PROPERTIES-
VOCs and DRO/JP-4
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

ENDNOTES

Analytical Table Notes:

Sample Collection Method
SB - Soil Boring
GW - Groundwater

General Abbreviations and Symbols
NL - Not Listed
Res - Result or Reporting Limit
RO - Remediation Objective
Q - Qualifier
** - Less than or equal to specified RO

Data Presentation

0.005	U	Not detected at specified Reporting Limit
0.005	**U**	(Bold) Detection limit above lowest specified RO
0.005		(Bold, Italic) Indicates compound detected but below lowest specified RO
0.005		(Bold, Italic, Shaded) Indicates compound detected above lowest specified RO
		(Blank) Indicates no analytical data for compound

Analytical Data Qualifiers
B - (Metals) Results less than reporting limit but greater than or equal to Method Detection Limit
E - Result exceeds calibration range, secondary dilution required
U - Not Detected
J - Estimated value below the Reporting Limit
a - Concentration is below the Method Reporting Limit
* - Batch QC exceeded the upper or lower control limits
H - Result based on an alternative peak selection upon analytical review
M - Manually Integrated Compound
- Concentration above Background Level but below lowest RO

SECOR

TABLE 5.3
GROUNDWATER ANALYTICAL RESULTS - VOCs and DRO/JP-4
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

Analyte	ROD - Preliminary Remediation Goals and/or Class 1- Groundwater Remediation Objectives for TACO Chemicals (ug/L)	Location	GW-SMW-1		GW-SMW-1		GW-SMW-2		GW-SMW-2		GW-SMW-3		GW-SMW-3		GW-SMW-4		GW-SMW-4		GW-SMW-5		GWD-SMW-5		GW-SMW-5		GW-SMW-6		GW-SMW-6		GW-SMW-7		GW-SMW-7		GW-SMW-8		GW-SMW-8	
		Sample Date	4/26/2004		11/16/2004		4/26/2004		11/16/2004		4/26/2004		11/16/2004		4/26/2004		11/16/2004		4/26/2004		4/26/2004		11/16/2004		4/27/2004		11/17/2004		4/27/2004		11/16/2004		4/26/2004		11/16/2004	
		Units	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
		RES Q																																		
1,1,1-Trichloroethane	200		*6.1*		*7.7*		1	U	1	U	1	U	1	U	*12*		*11*		*15*		*16*		*13*		*1,100*		*640*		*10,000*		*9,900*		*6.3*		*320*	
1,1,2,2-Tetrachloroethane	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100	U	100	U	20	U	1	U	1	U
1,1,2-Trichloroethane	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	*14*	*Ja*	1	U	1	U
1,1-Dichloroethane	700		1	U	1	U	1	U	1	U	1	U	*0.8*	*Ja*	*6.7*		*3.5*		*11*		*11*		*7.6*		*16,000*		*22,000*		*340*		*220*		*1.9*		*63*	
1,1-Dichloroethene	7		1	U	1	U	1	U	1	U	1	U	1	U	1	U	*0.7*	*Ja*	*2.2*		*2.3*		*2.7*		*470*		*550*		*310*		*230*		1	U	*2.5*	
1,2-Dichloroethane	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	1	U	1	U
1,2-Dichloroethene (total)	NL		1	U	1	U	*4.4*		1	U	1	U	1	U	*21*		*20*		*38*		*38*		*26*		*16,000*		*23,000*		*1,700*		*1,400*		*38*		*88*	
1,2-Dichloropropane	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	1	U	1	U
2-Butanone (MEK)	NL		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500	U	500	U	100	U	5	U	5	U
2-Hexanone	NL		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500	U	500	U	100	U	5	U	5	U
4-Methyl-2-pentanone (MIBK)	NL		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500	U	500	U	100	U	5	U	5	U
Acetone	700		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500	U	500	U	100	U	5	U	5	U
Benzene	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	1	U	1	U
Bromodichloromethane	0.2		**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	**1**	**U**	**1**	**U**
Bromoform	1		1	U	1	U*	1	U	1	U*	1	U	1	U*	1	U	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	1	U	1	U*
Bromomethane	9.8		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	1	U	1	U
Carbon disulfide	700		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500	U	500	U	100	U	5	U	5	U
Carbon tetrachloride	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U*	1	U*	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	1	U	1	U
Chlorobenzene	100		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100	U	100	U	20	U	1	U	1	U
Chloroethane	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	*0.98*	*J*	*1.0*		*3*		100	U	*300*		100	U	20	U	1	U	1	U
Chloroform	0.2		**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	**1**	**U**	**1**	**U**
Chloromethane	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U*	*32*		1	U	100	U	100	U	100	U	20	U	1	U	1	U
cis-1,3-Dichloropropene	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100	U	100	U	20	U	1	U	1	U
Dibromochloromethane	140		1	U	1	U*	1	U	1	U*	1	U	1	U*	1	U	1	U	1	U	1	U	1	U	100	U	100	U	100	U	20	U	1	U	1	U*
Ethylbenzene	700		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	*58*	*Ja*	*170*		*150*		1	U	1	U
Methylene chloride	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	**2**		1	U
Styrene	100		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100	U	100	U	20	U	1	U	1	U
Tetrachloroethene	5		*2.4*	*H*	*3.6*		*1.3*		*0.71*	*Ja*	1	U	*0.98*	*Ja*	*71*		*77*		*34*		*32*		*14*		**100**	**U**	**100**	**U**	*69*	*J*	*88*		*12*		*260*	
Toluene	1,000		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	*310*		*290*		100	U	*11*	*Ja*	1	U	1	U
trans-1,3-Dichloropropene	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100	U	100	U	20	U	1	U	1	U
Trichloroethene	5		1	U	1	U	1	U	1	U	1	U	1	U	*6*		*4.3*		*30*		*33*		*16*		**100**	**U**	**100**	**U**	*53*	*JM*	*32*		*6.8*		*32*	
Vinyl chloride	2		1	U	1	U	1	U	1	U	1	U	1	U	1	U	*7.4*		*31*		*32*		*14*		*1,800*		*2,100*		*46*	*Ja*	*14*	*Ja*	1	U	*1*	
Xylenes (total)	10,000		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	*250*		*390*		*1,000*		*920*		1	U	1	U
DRO/JP-4			120	U	120	U	120	U	120	U	130	Ua	120	U	130	U	130	U	120	Ua	120	U	140	U	880		1600		1100		1700		120	U	120	U

See Endnotes for analytical qualifier explanation.

02072.02t02

SECOR

TABLE 5.3
GROUNDWATER ANALYTICAL RESULTS - VOCs and DRO/JP-4
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

Analyte	ROD - Preliminary Remediation Goals and/or Class 1- Groundwater Remediation Objectives for TACO Chemicals (ug/L)	Location	GW-SMW-9		GW-SMW-9		GW-SMW-10		GW-SMW-10		GW-SMW-11R		GW-SMW-11R		GW-SMW-12		GWD-SMW-12		GW-SMW-12		GWD-SMW-12		GW-SMW-13		GW-SMW-13		GW-SMW-14		GW-SMW-14		GW-SMW-15		GW-SMW-15	
		Sample Date	4/27/2004		11/17/2004		4/27/2004		11/17/2004		4/26/2004		11/16/2004		4/26/2004		4/26/2004		11/16/2004		11/16/2004		4/26/2004		11/17/2004		4/26/2004		11/17/2004		4/26/2004		11/17/2004	
		Units	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
		RES Q																														
1,1,1-Trichloroethane	200		*52*		*24*		*19*		*16*		*1.4*		*5.1*		*8*		*8.7*		*10*		*11*		*1.7*		*3.2*		*9.1*		*10*		*69*		*92*	
1,1,2,2-Tetrachloroethane	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	700		*69*		*6.7*		*5.9*		*4.8*		*2.1*		*1.3*		*3.5*		*4.0*		*4.3*		*4.5*		1	U	1	U	*2.7*		*2.3*		*15*		*18*	
1,1-Dichloroethene	7		*3.8*		*3.5*		*2.5*		*2.2*		1	U	1	U	*0.95*	*J*	*1.0*		*1*		*1.1*		1	U	1	U	*1.6*		*1.3*		*1.3*		*1.4*	
1,2-Dichloroethane	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethene (total)	NL		*55*		*2.9*		*1.6*	*a*	*1.3*	*a*	*2.1*		*1.2*	*a*	*2.8*		*3.2*		*3.8*		*4.2*		1	U	1	U	*1.6*	*a*	*1.1*	*a*	*1.3*	*a*	*2.1*	
1,2-Dichloropropane	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone (MEK)	NL		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	NL		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-pentanone (MIBK)	NL		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	700		*4.1*	*J*	5	U	5	U	5	U	*2.1*	*J*	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	0.2		**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**
Bromoform	1		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U*	1	U	1	U*	1	U	1	U*
Bromomethane	9.8		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	700		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Carbon tetrachloride	5		1	U	1	U	1	U	1	U	1	U*	1	U	1	U	1	U	1	U	1	U	*1*		*1.9*		1	U	1	U	1	U	1	U
Chlorobenzene	100		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroform	0.2		**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	*0.7*	*Ja*	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**
Chloromethane	NL		1	U	1	U	1	U	1	U	1	U*	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dibromochloromethane	140		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U*	1	U	1	U*	1	U	1	U
Ethylbenzene	700		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5		*1.1*		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	100		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5		*3.3*		*7.6*		*5.9*		*4.7*		*1.3*		*1.6*		*4.6*		*4.4*		*8.3*		*9.2*		*15*		*24*		*5.8*		*7.5*		*53*		*56*	
Toluene	1,000		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	5		*2.4*		*3.7*		*3.4*		*2.6*		*1.8*		*1.1*		*2.9*		*3.0*		*3.4*		*4.0*		*14*		*20*		*4.2*		*3.1*		*7.4*		*5.3*	
Vinyl chloride	2		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	*0.81*	*Ja*
Xylenes (total)	10,000		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
DRO/JP-4			130	U	120	U	130	U	120	U	120	U	120	U	120	U	120	U	120	U	130	U	120	U	130	U	120	U	130	U	120	Ua	120	Ua

See Endnotes for analytical qualifier explanation.

TABLE 5.3
GROUNDWATER ANALYTICAL RESULTS - VOCs and DRO/JP-4
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

Analyte	ROD - Preliminary Remediation Goals and/or Class 1- Groundwater Remediation Objectives for TACO Chemicals (ug/L)	Location	GW-SMW-16A		GW-SMW-16A		GWD-SMW-16A		GW-SMW-17		GW-SMW-17		GW-SMW-18		GW-SMW-18		GW-SMW-19		GW-SMW-20		GW-SMW-21		GW-SMW-22		GW-MW-3FGA		GW-MW-3FGA		GW-MW-7FGA		GW-MW-7FGA	
		Sample Date	4/27/2004		11/16/2004		11/16/2004		4/27/2004		11/16/2004		4/27/2004		11/16/2004		11/17/2004		11/16/2004		11/16/2004		11/16/2004		4/26/2004		11/17/2004		4/26/2004		11/16/2004	
		Units	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
		RES Q																														
1,1,1-Trichloroethane	200		*14*		*12*		*13*		1	U	1	U	1	U	5	U	1	U	*6,900*		*34,000*		*110*		1	U	1	U	1	U	*1.8*	
1,1,2,2-Tetrachloroethane	NL		1	U	1	U	1	U	1	U	1	U	1	U	5	U	1	U	200	U	200	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	5		1	U	1	U	1	U	1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	*11*		1	U	1	U	1	U	1	U
1,1-Dichloroethane	700		1	U	1	U	1	U	*5.3*		*3.6*		*15*		*25*		1	U	*30,000*		*770*		*340*		1	U	1	U	1	U	1	U
1,1-Dichloroethene	7		1	U	1	U	1	U	1	U	1	U	*3.8*		*9.4*		1	U	*750*		*1,700*		*8.7*		1	U	1	U	1	U	1	U
1,2-Dichloroethane	5		1	U	1	U	1	U	1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	*6.1*		1	U	1	U	1	U	1	U
1,2-Dichloroethene (total)	NL		1	U	1	U	1	U	1	U	1	U	*9.7*		*49*		*8.7*		*28,000*		*1,800*		*250*		1	U	1	U	1	U	1	U
1,2-Dichloropropane	5		1	U	1	U	1	U	1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U
2-Butanone (MEK)	NL		5	U	5	U	5	U	5	U	5	U	5	U	25	U	5	U	1,000	U	1,000	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	NL		5	U	5	U	5	U	5	U	5	U	5	U	25	U	5	U	1,000	U	1,000	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-pentanone (MIBK)	NL		5	U	5	U	5	U	5	U	5	U	5	U	25	U	5	U	1,000	U	1,000	U	5	U	5	U	5	U	5	U	5	U
Acetone	700		5	U	5	U	5	U	5	U	5	U	*9.8*		25	U	5	U	**1,000**	**U**	**1,000**	**U**	5	U	5	U	5	U	5	U	5	U
Benzene	5		1	U	1	U	1	U	*11*		*8.4*		*310*		*220*		1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	0.2		**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**5**	**U**	**1**	**U**	**200**	**U**	**200**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**
Bromoform	1		1	U	1	U*	1	U*	1	U	1	U	1	U	**5**	**U**	1	U*	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U*	1	U
Bromomethane	9.8		1	U	1	U	1	U	1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	700		5	U	5	U	5	U	5	U	5	U	5	U	25	U	5	U	**1,000**	**U**	**1,000**	**U**	5	U	5	U	5	U	5	U	5	U
Carbon tetrachloride	5		1	U	1	U	1	U	1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	100		1	U	1	U	1	U	1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U
Chloroethane	NL		1	U	1	U	1	U	1	U	1	U	*180*		*190*		1	U	*590*		200	U	*4*		1	U	1	U	1	U	1	U
Chloroform	0.2		**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**5**	**U**	**1**	**U**	**200**	**U**	**200**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**
Chloromethane	NL		1	U	1	U	1	U	1	U	1	U	1	U	5	U	1	U	200	U	200	U	1	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	NL		1	U	1	U	1	U	1	U	1	U	1	U	5	U	1	U	200	U	200	U	1	U	1	U	1	U	1	U	1	U
Dibromochloromethane	140		1	U	1	U*	1	U*	1	U	1	U	1	U	5	U	1	U*	**200**	**U**	**200**	**U**	1	U	1	U	1	U*	1	U	1	U
Ethylbenzene	700		1	U	1	U	1	U	1	U	1	U	*250*		*290*		1	U	200	U	*150*	*Ja*	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5		1	U	1	U	1	U	1	U	1	U	*1.5*		5	U	1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U
Styrene	100		1	U	1	U	1	U	1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5		*4.5*		*4.2*		*4.1*		1	U	1	U	1	U	5	U	*2.2*		**200**	**U**	**200**	**U**	*290*		*1.9*		*1.7*		1	U	*3.3*	
Toluene	1,000		1	U	1	U	1	U	1	U	1	U	*450*		*160*		1	U	*530*		200	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	NL		1	U	1	U	1	U	1	U	1	U	1	U	5	U	1	U	200	U	200	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	5		1	U	*0.64*	*Ja*	*0.68*	*Ja*	*1.1*		1	U	1	U	5	U	*57*		**200**	**U**	*200*	*Ja*	*120*		*6.7*		*3.9*		1	U	*2.5*	
Vinyl chloride	2		1	U	1	U	1	U	1	U	1	U	*2.7*		**5**	**U**	1	U	*3,500*		**200**	**U**	*3.2*		1	U	1	U	1	U	1	U
Xylenes (total)	10,000		1	U	1	U	1	U	*0.88*	*Ja*	1	U	*880*		*750*		1	U	*750*		*2,100*		*6.9*		1	U	1	U	1	U	1	U
DRO/JP-4			130	U	120	U	120	U	130	Ua	120	Ua	7200		3600		160	U	2600		1300		120	Ua	140	U	160	U	170		1200	U

See Endnotes for analytical qualifier explanation.

TABLE 5.3
GROUNDWATER ANALYTICAL RESULTS - VOCs and DRO/JP-4
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

Analyte	ROD - Preliminary Remediation Goals and/or Class 1- Groundwater Remediation Objectives for TACO Chemicals (ug/L)	Location	GW-MW127		GW-MW127		GW-MW201		GW-MW201		GW-MW202		GW-MW202		GW-MW203		GW-MW203	
		Sample Date	4/27/2004		11/16/2004		4/27/2004		11/18/2004		4/27/2004		11/18/2004		4/27/2004		11/18/2004	
		Units	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
		RES / Q																
1,1,1-Trichloroethane	200		5	U	1	U	***86***		***47***		***0.37***	***Ja***	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	NL		5	U	1	U	50	U	10	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	5		5	U	1	U	**50**	**U**	**10**	**U**	1	U	1	U	1	U	1	U
1,1-Dichloroethane	700		***55***		***9.2***		***8,000***		***1,700***		1	U	1	U	1	U	***1.6***	
1,1-Dichloroethene	7		5	U	1	U	**50**	**U**	**10**	**U**	1	U	1	U	1	U	1	U
1,2-Dichloroethane	5		5	U	*7.7*		**50**	**U**	**10**	**U**	1	U	1	U	1	U	1	U
1,2-Dichloroethene (total)	NL		5	U	1	U	***51***		***30***		1	U	1	U	1	U	1	U
1,2-Dichloropropane	5		5	U	1	U	**50**	**U**	**10**	**U**	1	U	1	U	1	U	1	U
2-Butanone (MEK)	NL		25	U	5	U	250	U	50	U	5	U	5	U	5	U	5	U
2-Hexanone	NL		25	U	5	U	250	U	50	U	5	U	5	U	5	U	5	U
4-Methyl-2-pentanone (MIBK)	NL		25	U	5	U	250	U	50	U	5	U	5	U	5	U	5	U
Acetone	700		25	U	5	U	250	U	50	U	5	U	5	U	5	U	5	U
Benzene	5		***98***		***30***		**50**	**U**	**10**	**U**	1	U	1	U	1	U	1	U
Bromodichloromethane	0.2		**5**	**U**	**1**	**U**	**50**	**U**	**10**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**
Bromoform	1		**5**	**U**	1	U*	**50**	**U**	**10**	**U**	1	U	1	U	1	U	1	U
Bromomethane	9.8		5	U	1	U	**50**	**U**	**10**	**U**	1	U	1	U	1	U	1	U
Carbon disulfide	700		25	U	5	U	250	U	50	U	5	U	5	U	5	U	5	U
Carbon tetrachloride	5		5	U	1	U	**50**	**U**	**10**	**U**	1	U	1	U	1	U	1	U
Chlorobenzene	100		5	U	1	U	50	U	10	U	1	U	1	U	1	U	1	U
Chloroethane	NL		***1,500***		***900***		50	U	***30***		1	U	1	U	1	U	1	U
Chloroform	0.2		**5**	**U**	**1**	**U**	**50**	**U**	**10**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**
Chloromethane	NL		5	U	1	U	50	U	10	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	NL		5	U	1	U	50	U	10	U	1	U	1	U	1	U	1	U
Dibromochloromethane	140		5	U	1	U*	50	U	10	U	1	U	1	U	1	U	1	U
Ethylbenzene	700		5	U	1	U	50	U	10	U	1	U	1	U	1	U	1	U
Methylene chloride	5		5	U	1	U	**50**	**U**	**10**	**U**	1	U	1	U	1	U	1	U
Styrene	100		5	U	1	U	50	U	10	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5		***9.4***		1	U	**50**	**U**	**10**	**U**	***2***		***2.1***		***7.6***		***8.9***	
Toluene	1,000		5	U	1	U	50	U	10	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	NL		5	U	1	U	50	U	10	U	1	U	1	U	1	U	1	U
Trichloroethene	5		5	U	1	U	***26***	***J***	***23***		***0.64***	***J***	1	U	1	U	1	U
Vinyl chloride	2		**5**	**U**	1	U	***44***	***J***	***8.1***	***Ja***	1	U	1	U	1	U	1	U
Xylenes (total)	10,000		5	U	***2.1***		50	U	10	U	1	U	1	U	1	U	1	U
DRO/JP-4			120	Ua	120	U	150	Ua	130	U	140	U	130	U	130	U	120	U

See Endnotes for analytical qualifier explanation.

TABLE 5.3
GROUNDWATER ANALYTICAL RESULTS -
VOCs, DRO/JP-4
AREA 9/10
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

ENDNOTES

Analytical Table Notes:

Sample Collection Method
SB - Soil Boring
GW - Groundwater

General Abbreviations and Symbols
NL - Not Listed
Res - Result or Reporting Limit
RO - Remediation Objective
Q - Qualifier
** - Less than or equal to specified RO

Data Presentation

0.005	U	Not detected at specified Reporting Limit
0.005	**U**	(Bold) Detection limit above lowest specified RO
0.005		(Bold, Italic) Indicates compound detected but below lowest specified RO
0.005		(Bold, Italic, Shaded) Indicates compound detected above lowest specified RO
		(Blank) Indicates no analytical data for compound

Analytical Data Qualifiers
B - (Metals) Results less than reporting limit but greater than or equal to Method Detection Limit
E - Result exceeds calibration range, secondary dilution required
U - Not Detected
J - Estimated value below the Reporting Limit
a - Concentration is below the Method Reporting Limit
* - Batch QC exceeded the upper or lower control limits
H - Result based on an alternative peak selection upon analytical review
M - Manually Integrated Compound
- Concentration above Background Level but below lowest RO

Table 5.4

SECOR

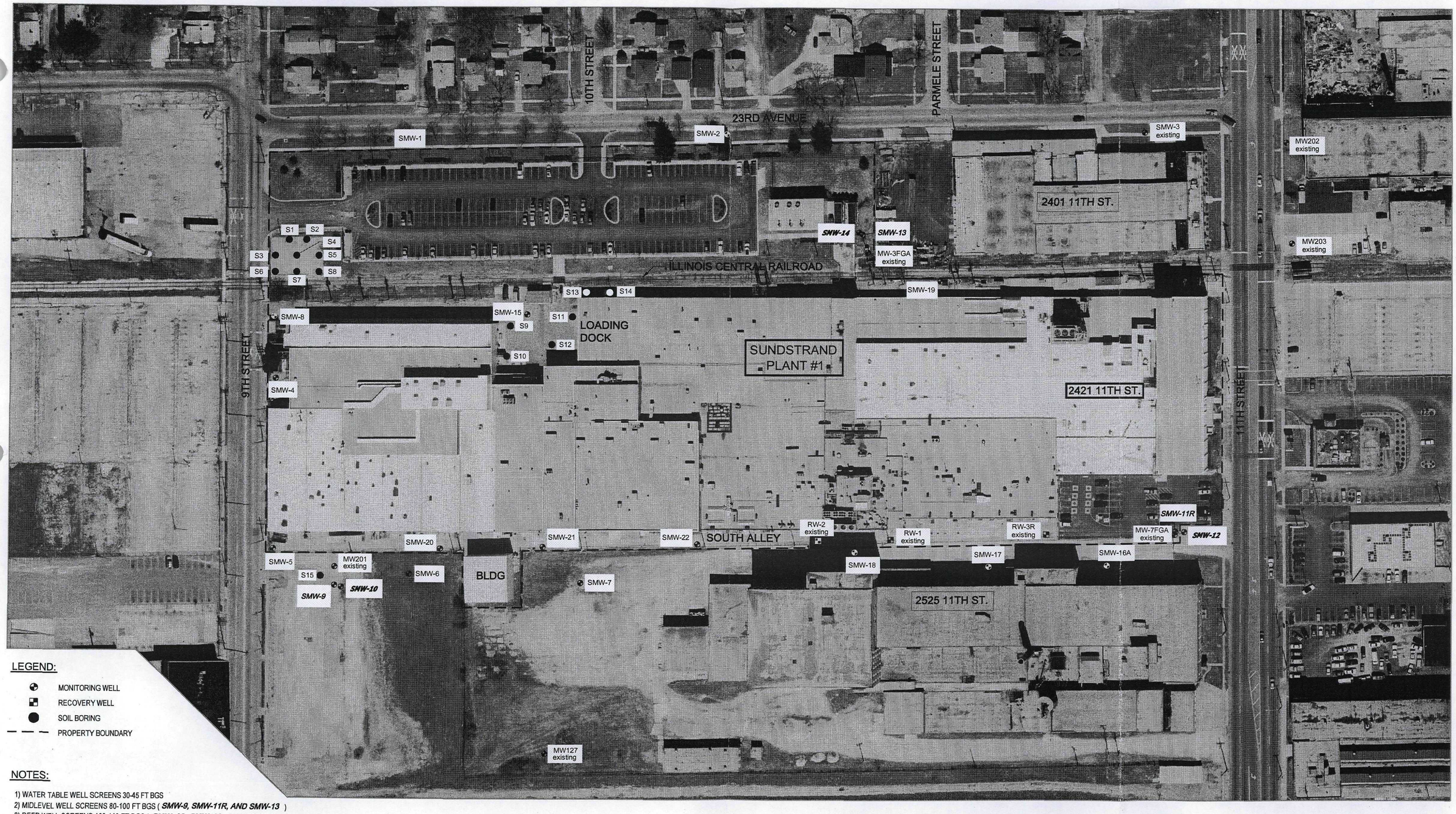
Groundwater Elevation Data

Southeast Rockford Groundwater Contamination Superfund Site
Rockford, Illinois

		4/22/2004		11/15/2004		5/3/2005		9/8/2005		12/5/2005	
Well Number	Top of Casing (ft)	Product Level (ft)	Water Level (ft)	Product Level (ft)	Water Level (ft)	Product Level (ft)	Water Level (ft)	Product Level (ft)	Water Level (ft)	Product Level (ft)	Water Level (ft)
MW127	728.65	NA	695.40	NA	696.00	NA	695.93	NA	694.26	NA	693.80
MW201	728.59	NA	NM	NA	695.87	NA	695.83	NA	694.28	NA	693.69
MW202	729.12	NA	NM	NA	697.01	NA	696.85	NA	695.30	NA	695.77
MW203	728.70	NA	NM	NA	696.99	NA	696.84	NA	695.25	NM	NM
RW-1	726.15	695.84	695.70	NM	NM	NA	696.45	694.92	694.06	694.43	694.34
RW-2	726.36	695.82	695.59	NM	NM	NA	696.37	694.80	694.23	694.41	693.51
RW-3	726.06	695.82	695.59	NM	NM						
RW-3R	726.06*	NI	NI	NI	NI	NA	696.64	695.13	694.34	694.60	694.48
MW-3FGA	728.43	NM	NM	NM	NM	NA	696.59	NA	695.00	NA	695.24
MW-7FGA	727.60	NA	696.10	NM	NM	NA	696.65	NA	695.04	NA	694.57
SMW-1	729.76	NA	695.63	NA	696.24	NA	696.16	NA	694.55	NA	694.13
SMW-2	726.76	NA	695.99	NA	696.63	NA	696.51	NA	694.92	NA	694.41
SMW-3	726.97	NA	695.70	NA	697.06	NA	NM	NA	NM	NA	694.83
SMW-4	728.59	NA	695.37	NA	695.94	NA	695.90	NA	694.35	NA	693.77
SMW-5	728.00	NA	695.22	NA	695.79	NA	695.79	NA	694.09	NA	693.62
SMW-6	731.29	NA	695.38	NA	695.95	NA	695.25	NA	694.25	NA	693.77
SMW-7	728.04	NA	695.46	NA	696.15	NA	696.06	NA	694.42	NA	693.95
SMW-8	728.84	NA	695.41	NA	695.96	NA	695.24	NA	694.28	NA	693.76
SMW-9	728.37	NA	695.24	NA	695.81	NA	695.78	NA	694.11	NA	693.64
SMW-10	728.59	NA	695.29	NA	695.87	NA	695.81	NA	694.15	NA	693.68
SMW-11R	727.70	NA	696.00	NA	696.68	NA	696.57	NA	694.95	NA	694.44
SMW-12	727.76	NA	696.03	NA	696.75	NA	696.63	NA	695.03	NA	694.78
SMW-13	728.86	NA	696.04	NA	696.73	NA	696.61	NA	695.01	NA	695.30
SMW-14	729.11	NA	696.06	NA	696.79	NA	696.63	NA	695.03	NA	695.76
SMW-15	727.90	NA	695.69	NA	696.29	NA	696.20	NA	694.57	NA	694.10
SMW-16A	727.54	NA	695.99	NA	696.69	NA	696.54	NA	694.93	NA	694.46
SMW-17	727.72	NA	695.91	NA	696.58	NA	696.46	NA	694.82	NA	694.35
SMW-18	727.32	NA	695.77	NA	696.43	NA	696.32	NA	694.69	NA	694.20
SMW-19	728.45	NI	NI	NA	696.71	NA	696.59	NA	694.99	NA	694.47
SMW-20	727.79	NI	NI	NA	696.01	NA	695.98	NA	694.29	NA	693.83
SMW-21	727.37	NI	NI	NA	696.14	NA	696.08	NA	694.41	NA	693.93
SMW-22	726.86	NI	NI	NA	696.26	NA	696.18	NA	694.54	NA	694.08

Notes:
NA - Not Applicable
NI - *Not Installed as of measurement date*
NM - Not Measured
Top of Casing (TOC) survey completed May 2004 - in feet above mean sea level
TOC survey completed December 2004
Abandoned
RW-3 was replaced in December 2004 with RW-3R which has not been surveyed
* TOC information from previous well RW-3 at same location used

FIGURES



LEGEND:

- MONITORING WELL
- RECOVERY WELL
- SOIL BORING
- PROPERTY BOUNDARY

NOTES:

1) WATER TABLE WELL SCREENS 30-45 FT BGS
2) MIDLEVEL WELL SCREENS 80-100 FT BGS (***SMW-9, SMW-11R, AND SMW-13***)
3) DEEP WELL SCREENS 120-140 FT BGS (***SMW-10, SMW-12, AND SMW-14***)
4) SCREEN INTERVAL DEPTHS ARE APPROXIMATE

0 120 240

APPROXIMATE SCALE (FEET)

N

BASE MAP DATA SOURCE: WinGIS - APRIL 27, 2001

\\fs061\CADD\SE Rockford\13UN.02072.00\horizontal well plan\061 BASE.DWG

SECOR
446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680 FAX: (630) 792-1691

FOR: HAMILTON SUNDSTRAND ROCKFORD, ILLINOIS

SOIL BORING AND MONITORING WELL LOCATIONS

FIGURE 1.4

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
13UN.02072.02.0001	KEF	CA/KTW	DMC	3-6-06

LEGEND:

⊕	MONITORING WELL
▪	RECOVERY WELL
— — —	PROPERTY BOUNDARY
31.16'-46.16'	MONITORING WELL SCREEN ELEVATION INTERVAL BELOW TOP OF CASING (feet)
681.88'-696.88'	MONITORING WELL SCREEN ELEVATION (feet) MEAN SEA LEVEL
*	BASED ON RW-3 SURVEY DATA
**	TOTAL DEPTH WAS MEASURED ON JANUARY 14-15, 2004

NOTES:

1) WATER TABLE WELL SCREENS 30-45 FT BGS
2) MIDLEVEL WELL SCREENS 80-100 FT BGS (***SMW-9, SMW-11R, AND SMW-13***)
3) DEEP WELL SCREENS 120-140 FT BGS (***SMW-10, SMW-12, AND SMW-14***)
4) SCREEN INTERVAL DEPTHS ARE APPROXIMATE.
5) ALL WELLS ARE FINISHED AT SURFACE GRADE WITH THE EXCEPTION OF WELLS SMW-6, SMW-7 AND MW127.
6) ELEVATIONS BASED ON MAY 2004 SURVEY. WELLS SMW-19 THROUGH SMW-22 SURVEYED IN DECEMBER 2004.
7) TD - TOTAL DEPTHS PROVIDED. EXACT SCREEN INTERVAL NOT KNOWN.
8) MONITORING WELL SCREEN ELEVATION INTERVAL SHOWN IS THE TOP OF SCREEN (FT) BGS AND BOTTOM SCREEN (FT) BGS.
9) MONITORING WELL SCREEN ELEVATION MEAN SEA LEVEL WAS CALCULATED BY SUBTRACTING THE TOP OF SCREEN (FT) BGS AND THE BOTTOM OF SCREEN ELEVATION FROM THE TOC ELEVATION.

BASE MAP DATA SOURCE: WinGIS - APRIL 27, 2001

0 120 240

APPROXIMATE SCALE (FEET)

N

SECOR
446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680 FAX: (630) 792-1691

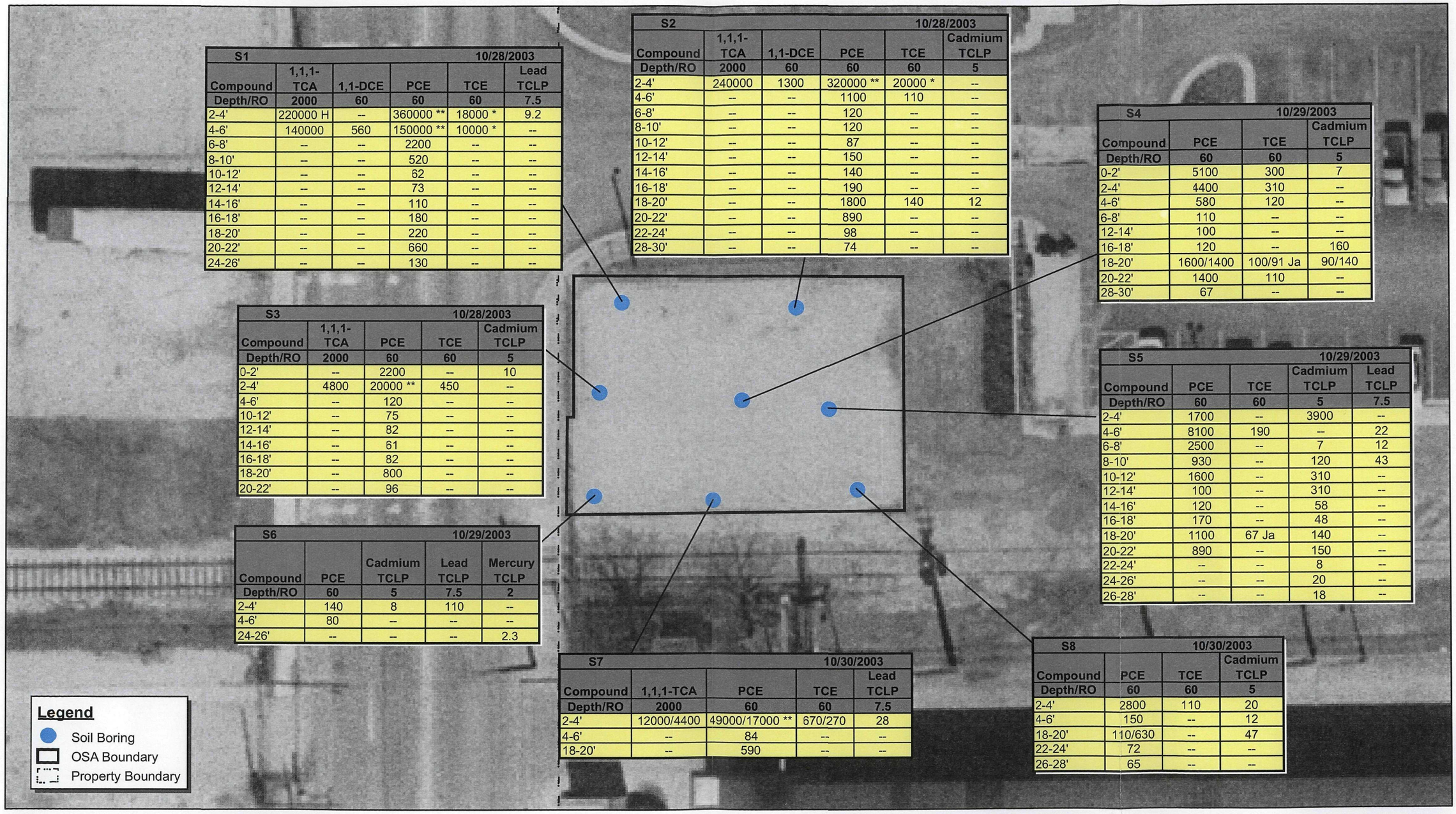
FOR: HAMILTON SUNDSTRAND ROCKFORD, ILLINOIS

MONITORING WELL LOCATION AND SCREEN DEPTHS

FIGURE 1.5

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
13UN.02072.02.0001	KEF	CA/KTW	DMC	3-13-06

\\s061\CADD\SE Rockford\13UN.02072.00\horizontal well plan\061 MONWELL.DWG



S1					10/28/2003
Compound	1,1,1-TCA	1,1-DCE	PCE	TCE	Lead TCLP
Depth/RO	2000	60	60	60	7.5
2-4'	220000 H	--	360000 **	18000 *	9.2
4-6'	140000	560	150000 **	10000 *	--
6-8'	--	--	2200	--	--
8-10'	--	--	520	--	--
10-12'	--	--	62	--	--
12-14'	--	--	73	--	--
14-16'	--	--	110	--	--
16-18'	--	--	180	--	--
18-20'	--	--	220	--	--
20-22'	--	--	660	--	--
24-26'	--	--	130	--	--

S2					10/28/2003
Compound	1,1,1-TCA	1,1-DCE	PCE	TCE	Cadmium TCLP
Depth/RO	2000	60	60	60	5
2-4'	240000	1300	320000 **	20000 *	--
4-6'	--	--	1100	110	--
6-8'	--	--	120	--	--
8-10'	--	--	120	--	--
10-12'	--	--	87	--	--
12-14'	--	--	150	--	--
14-16'	--	--	140	--	--
16-18'	--	--	190	--	--
18-20'	--	--	1800	140	12
20-22'	--	--	890	--	--
22-24'	--	--	98	--	--
28-30'	--	--	74	--	--

S3				10/28/2003
Compound	1,1,1-TCA	PCE	TCE	Cadmium TCLP
Depth/RO	2000	60	60	5
0-2'	--	2200	--	10
2-4'	4800	20000 **	450	--
4-6'	--	120	--	--
10-12'	--	75	--	--
12-14'	--	82	--	--
14-16'	--	61	--	--
16-18'	--	82	--	--
18-20'	--	800	--	--
20-22'	--	96	--	--

S4			10/29/2003
Compound	PCE	TCE	Cadmium TCLP
Depth/RO	60	60	5
0-2'	5100	300	7
2-4'	4400	310	--
4-6'	580	120	--
6-8'	110	--	--
12-14'	100	--	--
16-18'	120	--	160
18-20'	1600/1400	100/91 Ja	90/140
20-22'	1400	110	--
28-30'	67	--	--

S5				10/29/2003
Compound	PCE	TCE	Cadmium TCLP	Lead TCLP
Depth/RO	60	60	5	7.5
2-4'	1700	--	3900	--
4-6'	8100	190	--	22
6-8'	2500	--	7	12
8-10'	930	--	120	43
10-12'	1600	--	310	--
12-14'	100	--	310	--
14-16'	120	--	58	--
16-18'	170	--	48	--
18-20'	1100	67 Ja	140	--
20-22'	890	--	150	--
22-24'	--	--	8	--
24-26'	--	--	20	--
26-28'	--	--	18	--

S6				10/29/2003
Compound	PCE	Cadmium TCLP	Lead TCLP	Mercury TCLP
Depth/RO	60	5	7.5	2
2-4'	140	8	110	--
4-6'	80	--	--	--
24-26'	--	--	--	2.3

S7				10/30/2003
Compound	1,1,1-TCA	PCE	TCE	Lead TCLP
Depth/RO	2000	60	60	7.5
2-4'	12000/4400	49000/17000 **	670/270	28
4-6'	--	84	--	--
18-20'	--	590	--	--

S8			10/30/2003
Compound	PCE	TCE	Cadmium TCLP
Depth/RO	60	60	5
2-4'	2800	110	20
4-6'	150	--	12
18-20'	110/630	--	47
22-24'	72	--	--
26-28'	65	--	--

Legend

- Soil Boring
- OSA Boundary
- Property Boundary

Notes:

1. Only compounds detected above Remediation Objectives (RO) are shown.
2. All units are in ppb: ug/kg or ug/l for TCLP Metals.
3. The lowest RO for all compounds was associated with the soil component of the Groundwater Ingestion Pathway for Class 1 groundwater.
4. Duplicate samples are identified by the '/'. The second result is the duplicate.
5. * denotes results that also exceed the residential ingestion RO.
6. ** denotes results that also exceed the residential inhalation and ingestion ROs.
7. Data Qualifiers:
   Ja - Estimate value below the reporting limit
   H - Based on an alternative peak upon review.

0 10 20 Feet

Approximate Scale

N

Basemap Data Source: AirphotoUSA September 2004

SECOR
446 EISENHOWER LANE NORTH
LOMBARD, IL 60148
PHONE: (630) 792-1680 Fax: (630) 792-1691

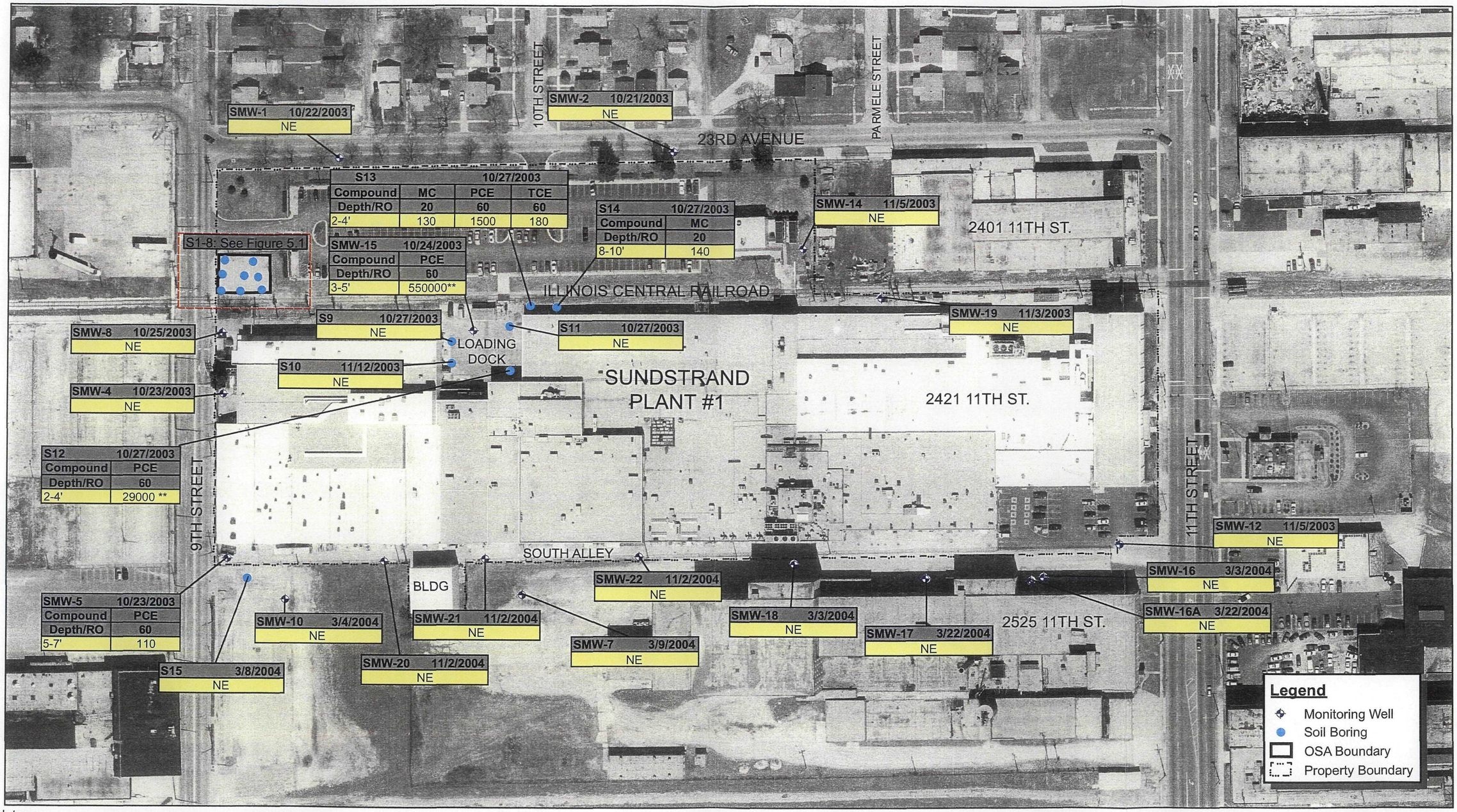
FOR: HAMILTON SUNDSTRAND ROCKFORD, IL

Soil Analytical Results Outside Container Storage Area (OSA)

FIGURE: **5.1**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
13UN.02072.02	MB	KW	DMC	02/26/2006

Map Document: (E:\Workspace\Lombard\UTC\MXD\osa.mxd)



Notes:

1. Only compounds detected above Remediation Objectives (RO) are shown.
2. All units are in ppb: ug/kg
3. The lowest RO for all compounds was associated with the soil component of the Groundwater Ingestion Pathway for Class 1 groundwater.
4. Duplicate samples are identified by the '/'. The second result is the duplicate.
4. * denotes results that also exceed the residential ingestion RO.
5. ** denotes results that also exceed the residential inhalation and ingestion ROs.
6. NE = No Exceedence of ROs
7. Outside Storage Area results (S1-S8) shown on Figure 5.1.

0 125 250 Feet

Approximate Scale

N

Basemap Data Source: AirphotoUSA September 2004

SECOR
446 EISENHOWER LANE NORTH
LOMBARD, IL 60148
PHONE: (630) 792-1680 Fax: (630) 792-1691

FOR: HAMILTON SUNDSTRAND ROCKFORD, IL

Soil Analytical Results HS Plant #1 and Offsite Properties

FIGURE: 5.2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
13UN.02072.02	MB	KW	DMC	04/07/2006

Map Document: (E:\Workspace\Lombard\UTC\MXD\soil_results_areawide.mxd)

SDMS US EPA Region V

Imagery Insert Form

Some images in this document may be illegible or unavailable in SDMS. Please see reason(s) indicated below:

☐ Illegible due to bad source documents. Image(s) in SDMS is equivalent to hard copy.

Specify Type of Document(s) / Comment

☐ **Confidential Business Information (CBI).**
This document contains highly sensitive information. Due to confidentiality, materials with such information are not available in SDMS. You may contact the EPA Superfund Records Manager if you wish to view this document.

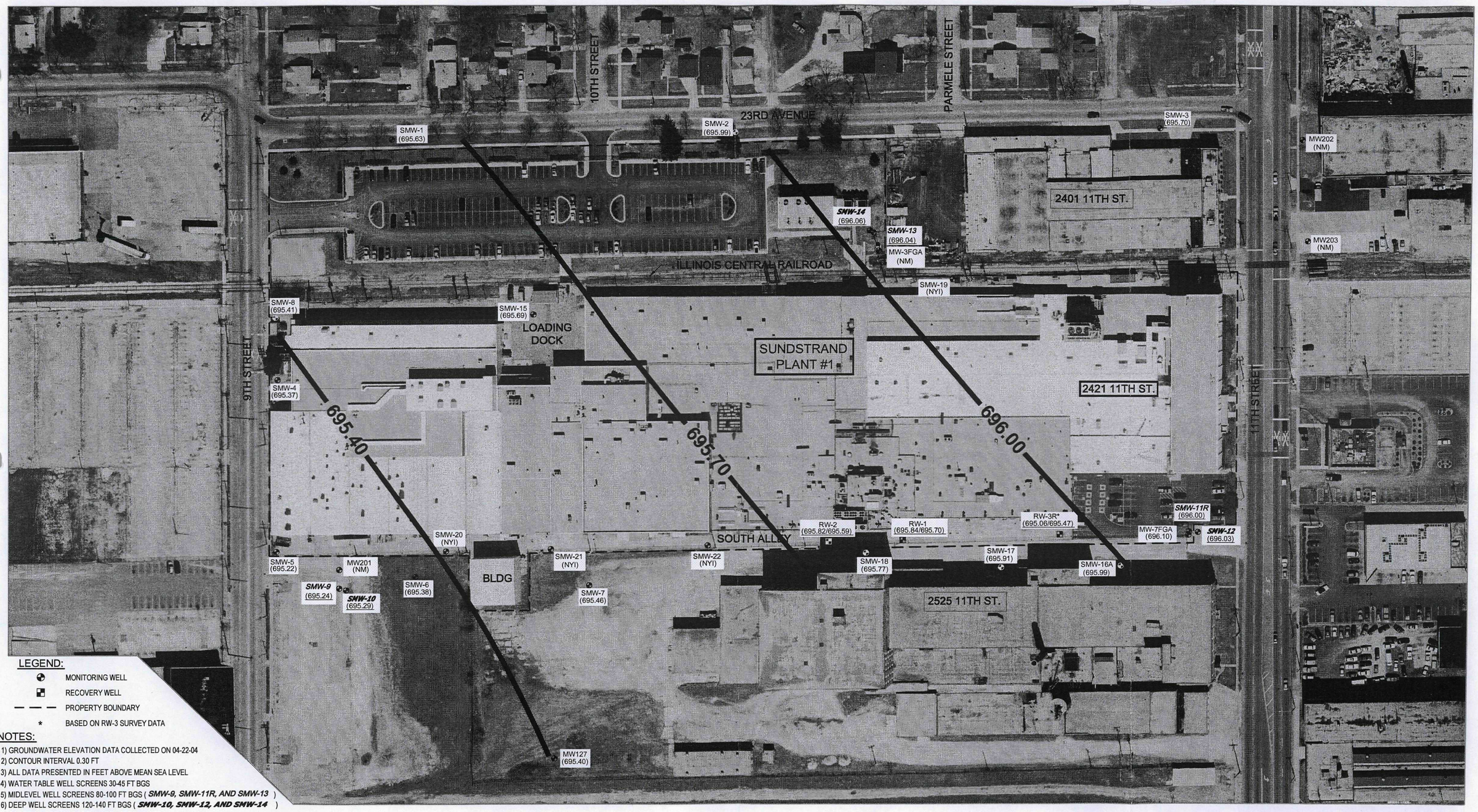
Specify Type of Document(s) / Comment

☒ **Unscannable Material: Oversized __X__ or ___ Format.**
Due to certain scanning equipment capability limitations, the document page(s) is not available in SDMS. The original document is available for viewing at the Superfund Records center.

Specify Type of Document(s) / Comment

FIGURE 5.3 – GROUNDWATER ANALYTICAL RESULTS

☐ **Other:**



LEGEND:

- MONITORING WELL
- RECOVERY WELL
- PROPERTY BOUNDARY
- * BASED ON RW-3 SURVEY DATA

NOTES:

1) GROUNDWATER ELEVATION DATA COLLECTED ON 04-22-04
2) CONTOUR INTERVAL 0.30 FT
3) ALL DATA PRESENTED IN FEET ABOVE MEAN SEA LEVEL
4) WATER TABLE WELL SCREENS 30-45 FT BGS
5) MIDLEVEL WELL SCREENS 80-100 FT BGS (***SMW-9, SMW-11R, AND SMW-13***)
6) DEEP WELL SCREENS 120-140 FT BGS (***SMW-10, SMW-12, AND SMW-14***)
7) SCREEN INTERVAL DEPTHS ARE APPROXIMATE
8) 695.73 - WATER LEVEL ELEVATION
9) 696.21/696.13 - PRODUCT ELEVATION/WATER LEVEL ELEVATION
10) 695.21 - UNDERLINED VALUE EXCLUDED FROM POTENTIOMETRIC SURFACE EVALUATION
11) BGS - BELOW GROUND SURFACE
12) NM - NOT MEASURED
13) NYI - NOT YET INSTALLED (SMW-19, SMW-20, SMW-21, SMW-22)
14) ONLY WELLS SCREENED AT THE TOP OF THE WATER TABLE (30-45 FEET BGS) USED FOR POTENTIOMETRIC EVALUATION. DATA FROM MIDLEVEL, DEEP, AND PRODUCT WELLS AND UNDERLINED DATA NOT USED.

BASE MAP DATA SOURCE: WinGIS - APRIL 27, 2001

0 120 240

APPROXIMATE SCALE (FEET)

N

SECOR
446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680 FAX: (630) 792-1691

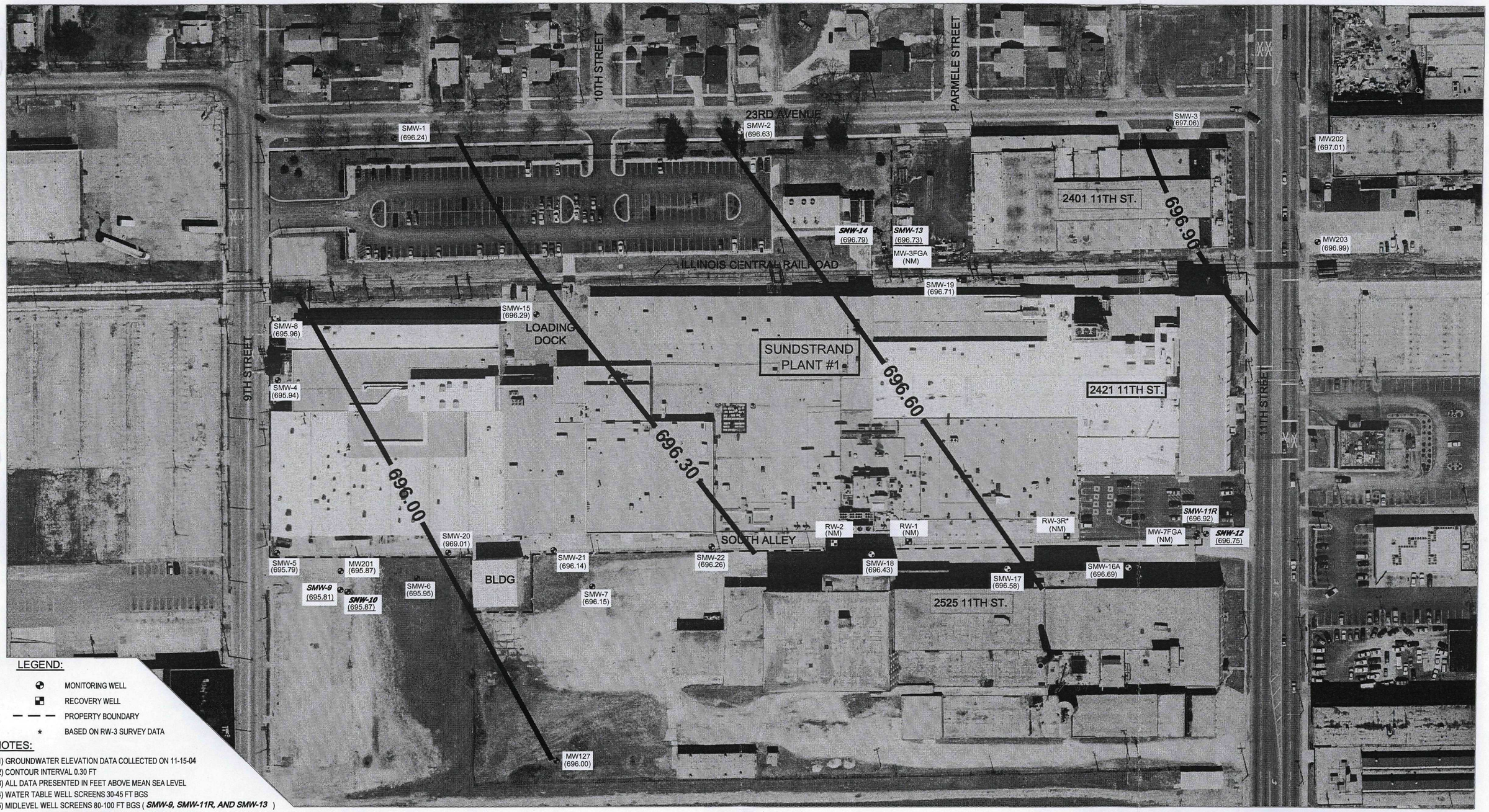
FOR: HAMILTON SUNDSTRAND ROCKFORD, ILLINOIS

GROUNDWATER POTENTIOMETRIC SURFACE MAP APRIL 22, 2004

FIGURE 5.4

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
13UN.02072.02.0001	KEF	CA/KTW	DMC	2-22-06

\\s061\CADD\SE Rockford\13UN.02072.00\horizontal well plan\061 CONTOUR 0404.DWG



LEGEND:

- MONITORING WELL
- RECOVERY WELL
- PROPERTY BOUNDARY
- * BASED ON RW-3 SURVEY DATA

NOTES:

1) GROUNDWATER ELEVATION DATA COLLECTED ON 11-15-04
2) CONTOUR INTERVAL 0.30 FT
3) ALL DATA PRESENTED IN FEET ABOVE MEAN SEA LEVEL
4) WATER TABLE WELL SCREENS 30-45 FT BGS
5) MIDLEVEL WELL SCREENS 80-100 FT BGS (***SMW-9, SMW-11R, AND SMW-13***)
6) DEEP WELL SCREENS 120-140 FT BGS (***SMW-10, SMW-12, AND SMW-14***)
7) SCREEN INTERVAL DEPTHS ARE APPROXIMATE
8) 695.73 - WATER LEVEL ELEVATION
9) 696.21/696.13 - PRODUCT ELEVATION/WATER LEVEL ELEVATION
10) 695.21 - UNDERLINED VALUE EXCLUDED FROM POTENTIOMETRIC SURFACE EVALUATION
11) BGS - BELOW GROUND SURFACE
12) NM - NOT MEASURED
13) ONLY WELLS SCREENED AT THE TOP OF THE WATER TABLE (30-45 FEET BGS) USED FOR POTENTIOMETRIC EVALUATION. DATA FROM MIDLEVEL, DEEP, AND PRODUCT WELLS AND UNDERLINED DATA NOT USED.

BASE MAP DATA SOURCE: WinGIS - APRIL 27, 2001

0 120 240

APPROXIMATE SCALE (FEET)

N

SECOR
446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680 FAX: (630) 792-1691

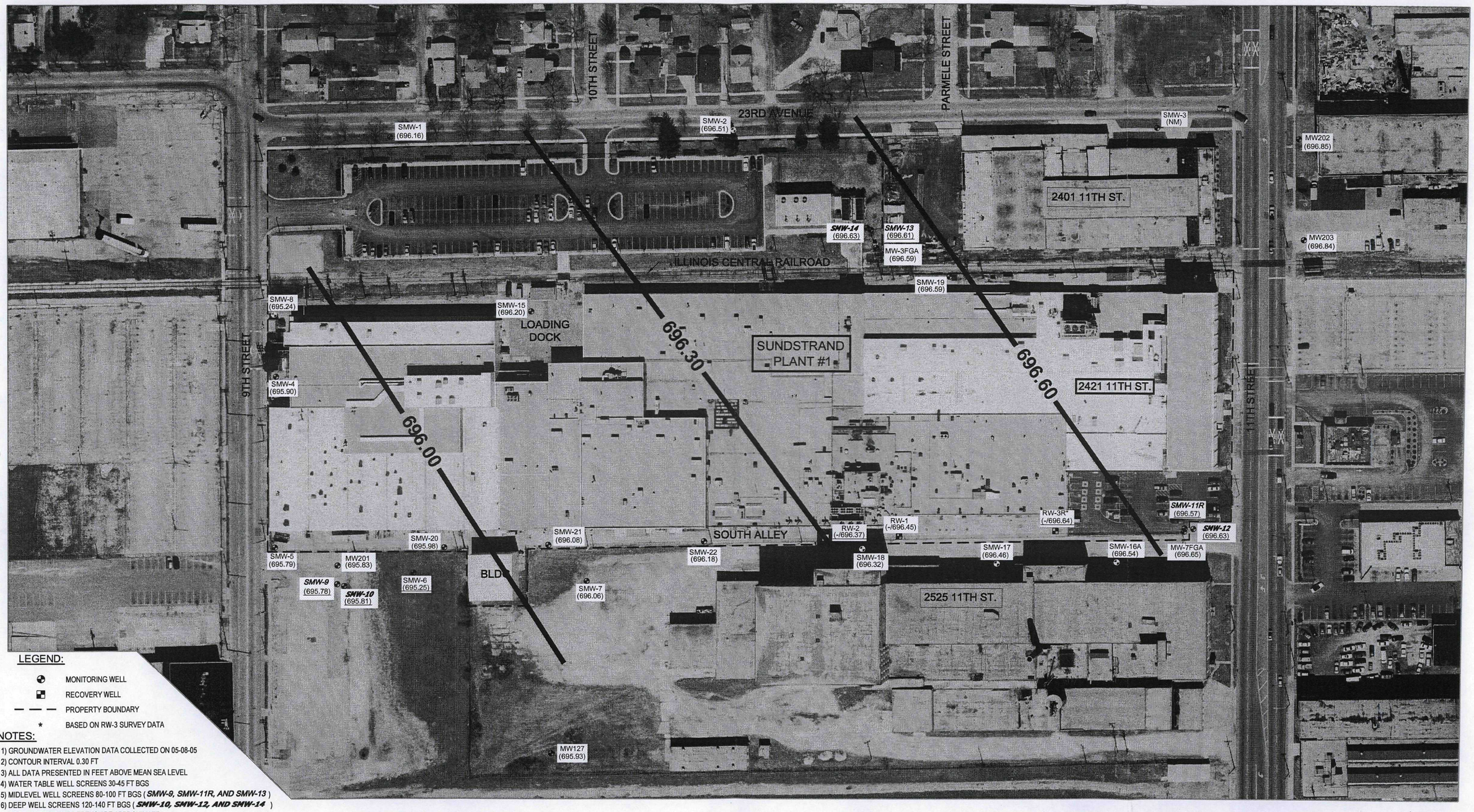
FOR: HAMILTON SUNDSTRAND ROCKFORD, ILLINOIS

GROUNDWATER POTENTIOMETRIC SURFACE MAP NOVEMBER 15, 2004

FIGURE 5.5

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
13UN.02072.02.0001	KEF	CA/KTW	DMC	3-6-06

\\fs061\CADD\SE Rockford\13UN.02072.00\horizontal well plan\061 CONTOUR 0404.DWG



LEGEND:

- MONITORING WELL
- RECOVERY WELL
- PROPERTY BOUNDARY
- * BASED ON RW-3 SURVEY DATA

NOTES:

1) GROUNDWATER ELEVATION DATA COLLECTED ON 05-08-05
2) CONTOUR INTERVAL 0.30 FT
3) ALL DATA PRESENTED IN FEET ABOVE MEAN SEA LEVEL
4) WATER TABLE WELL SCREENS 30-45 FT BGS
5) MIDLEVEL WELL SCREENS 80-100 FT BGS (***SMW-9, SMW-11R, AND SMW-13***)
6) DEEP WELL SCREENS 120-140 FT BGS (***SMW-10, SMW-12, AND SMW-14***)
7) SCREEN INTERVAL DEPTHS ARE APPROXIMATE
8) 696.85 - WATER LEVEL ELEVATION
9) -/696.64 - PRODUCT ELEVATION/WATER LEVEL ELEVATION (-) IF NO PRODUCT MEASURED
10) 695.24 - UNDERLINED VALUE EXCLUDED FROM POTENTIOMETRIC SURFACE EVALUATION
11) BGS - BELOW GROUND SURFACE
12) NM - NOT MEASURED
13) ONLY WELLS SCREENED AT THE TOP OF THE WATER TABLE (30-45 FEET BGS) USED FOR POTENTIOMETRIC EVALUATION. DATA FROM MIDLEVEL, DEEP, AND PRODUCT WELLS AND UNDERLINED DATA NOT USED.

BASE MAP DATA SOURCE: WinGIS - APRIL 27, 2001

0 120 240

APPROXIMATE SCALE (FEET)

N

SECOR
446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680 FAX: (630) 792-1691

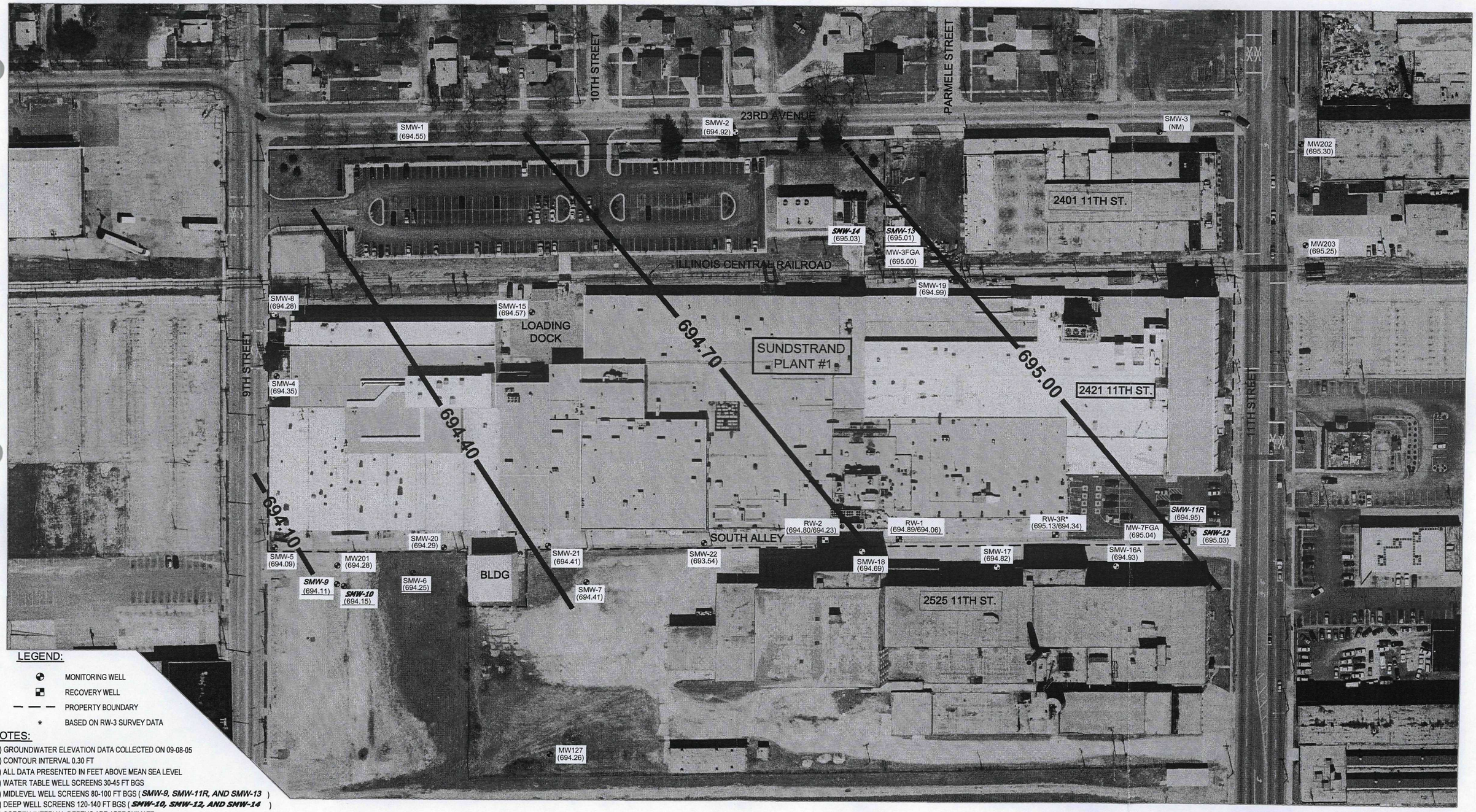
FOR: HAMILTON SUNDSTRAND ROCKFORD, ILLINOIS

GROUNDWATER POTENTIOMETRIC SURFACE MAP MAY 3, 2005

FIGURE 5.6

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
13UN.02072.02.0001	KEF	CA/KTW	DMC	3-6-06

\\fs061\CADD\SE Rockford\13UN.02072.00\horizontal well plan\061 CONTOUR 0505.DWG



LEGEND:

- MONITORING WELL
- RECOVERY WELL
- PROPERTY BOUNDARY
- * BASED ON RW-3 SURVEY DATA

NOTES:

1) GROUNDWATER ELEVATION DATA COLLECTED ON 09-08-05
2) CONTOUR INTERVAL 0.30 FT
3) ALL DATA PRESENTED IN FEET ABOVE MEAN SEA LEVEL
4) WATER TABLE WELL SCREENS 30-45 FT BGS
5) MIDLEVEL WELL SCREENS 80-100 FT BGS (***SMW-9, SMW-11R, AND SMW-13***)
6) DEEP WELL SCREENS 120-140 FT BGS (***SMW-10, SMW-12, AND SMW-14***)
7) SCREEN INTERVAL DEPTHS ARE APPROXIMATE
8) 694.09 - WATER LEVEL ELEVATION
9) 694.89/694.06 - PRODUCT ELEVATION/WATER LEVEL ELEVATION
10) 694.11 - UNDERLINED VALUE EXCLUDED FROM POTENTIOMETRIC SURFACE EVALUATION
11) BGS - BELOW GROUND SURFACE
12) NM - NOT MEASURED
13) ONLY WELLS SCREENED AT THE TOP OF THE WATER TABLE (30-45 FEET BGS) USED FOR POTENTIOMETRIC EVALUATION. DATA FROM MIDLEVEL, DEEP, AND PRODUCT WELLS AND UNDERLINED DATA NOT USED.

BASE MAP DATA SOURCE: WinGIS - APRIL 27, 2001

0 120 240

APPROXIMATE SCALE (FEET)

N

SECOR
446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680 FAX: (630) 792-1691

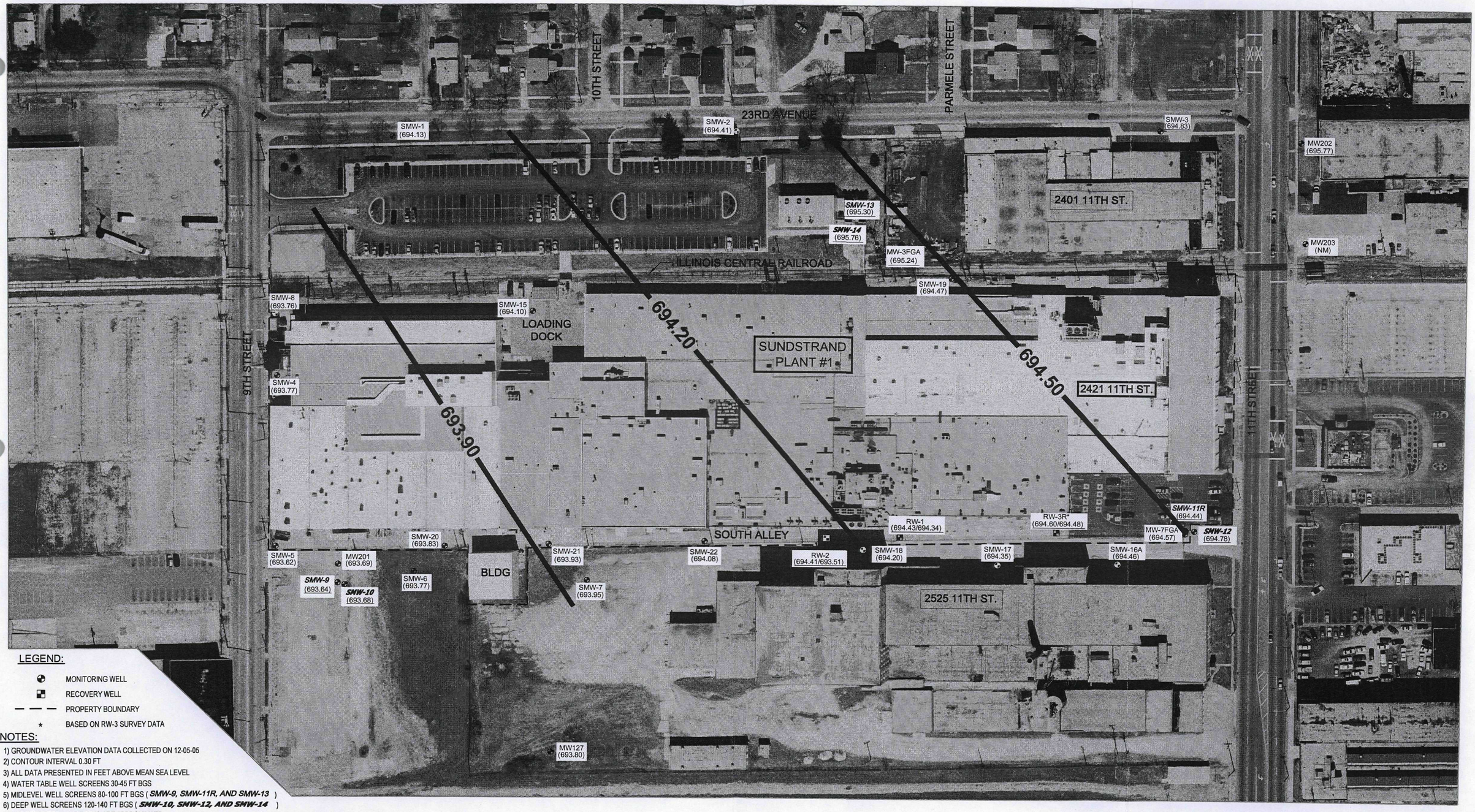
FOR: HAMILTON SUNDSTRAND ROCKFORD, ILLINOIS

GROUNDWATER POTENTIOMETRIC SURFACE MAP SEPTEMBER 8, 2005

FIGURE 5.7

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
13UN.02072.02.0001	KEF	CA/KTW	DMC	3-6-06

\\fs061\CADD\SE Rockford\13UN.02072.00\horizontal well plan\061 CONTOUR 0905.DWG



LEGEND:

- MONITORING WELL
- RECOVERY WELL
- PROPERTY BOUNDARY
- * BASED ON RW-3 SURVEY DATA

NOTES:

1) GROUNDWATER ELEVATION DATA COLLECTED ON 12-05-05
2) CONTOUR INTERVAL 0.30 FT
3) ALL DATA PRESENTED IN FEET ABOVE MEAN SEA LEVEL
4) WATER TABLE WELL SCREENS 30-45 FT BGS
5) MIDLEVEL WELL SCREENS 80-100 FT BGS (***SMW-9, SMW-11R, AND SMW-13***)
6) DEEP WELL SCREENS 120-140 FT BGS (***SMW-10, SMW-12, AND SMW-14***)
7) SCREEN INTERVAL DEPTHS ARE APPROXIMATE
8) 694.09 - WATER LEVEL ELEVATION
9) 694.89/694.06 - PRODUCT ELEVATION/WATER LEVEL ELEVATION
10) 694.11 - UNDERLINED VALUE EXCLUDED FROM POTENTIOMETRIC SURFACE EVALUATION
11) BGS - BELOW GROUND SURFACE
12) NM - NOT MEASURED
13) ONLY WELLS SCREENED AT THE TOP OF THE WATER TABLE (30-45 FEET BGS) USED FOR POTENTIOMETRIC EVALUATION. DATA FROM MIDLEVEL, DEEP, AND PRODUCT WELLS AND UNDERLINED DATA NOT USED.

BASE MAP DATA SOURCE: WinGIS - APRIL 27, 2001

0 120 240

APPROXIMATE SCALE (FEET)

N

SECOR
446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680 FAX: (630) 792-1691

FOR:		GROUNDWATER POTENTIOMETRIC SURFACE MAP DECEMBER 5, 2005		FIGURE
HAMILTON SUNDSTRAND ROCKFORD, ILLINOIS				5.8
JOB NUMBER: 13UN.02072.02.0001	DRAWN BY: KEF	CHECKED BY: CA/KTW	APPROVED BY: DMC	DATE: 3-6-06

\\vs061\CADD\SE Rockford\13UN.02072.00\horizontal well plan\061 CONTOUR 1205.DWG

APPENDIX A

Sanborn Fire Insurance Maps

From Environmental Data Resources

1913

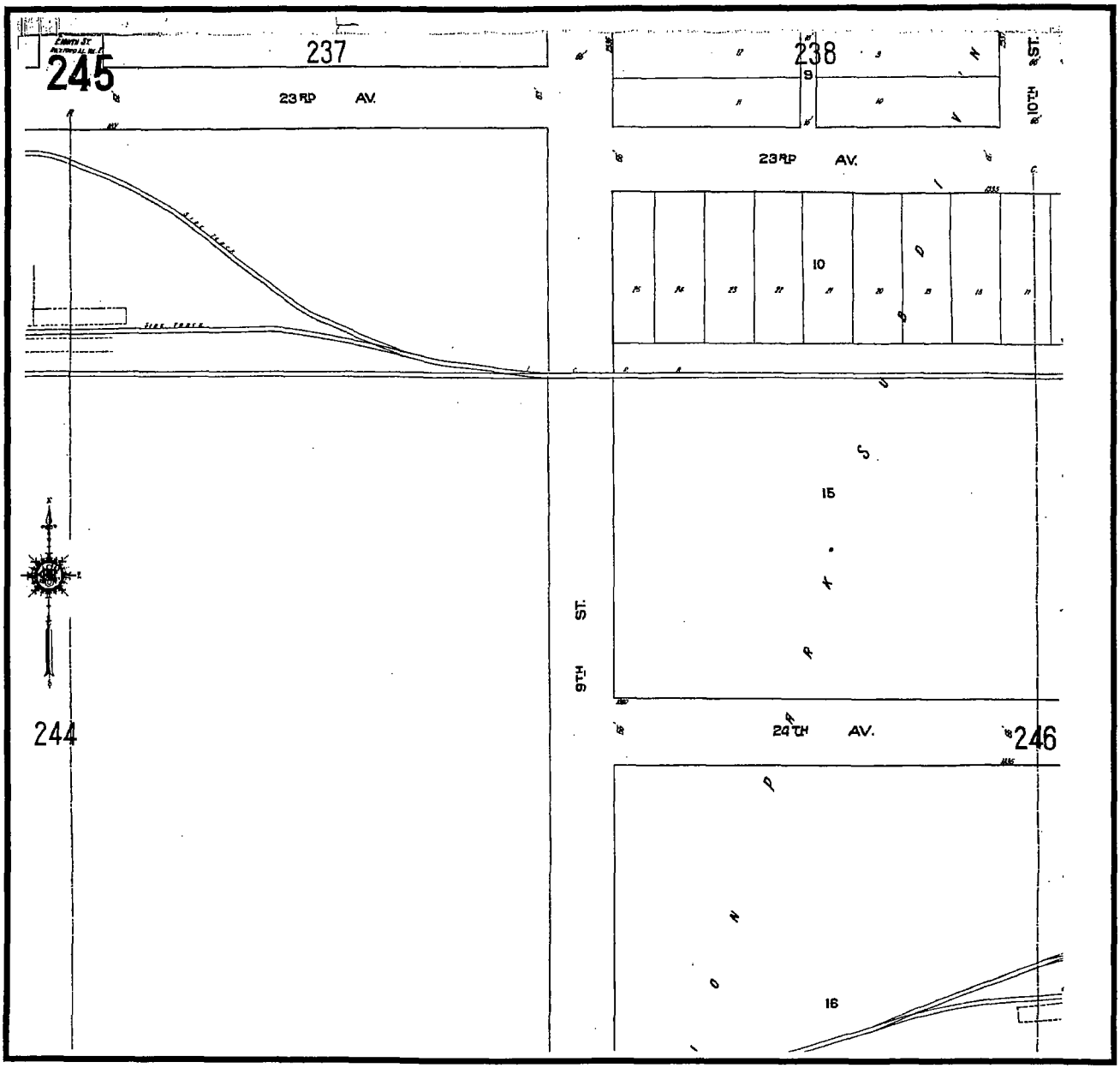
1950

1951

1957

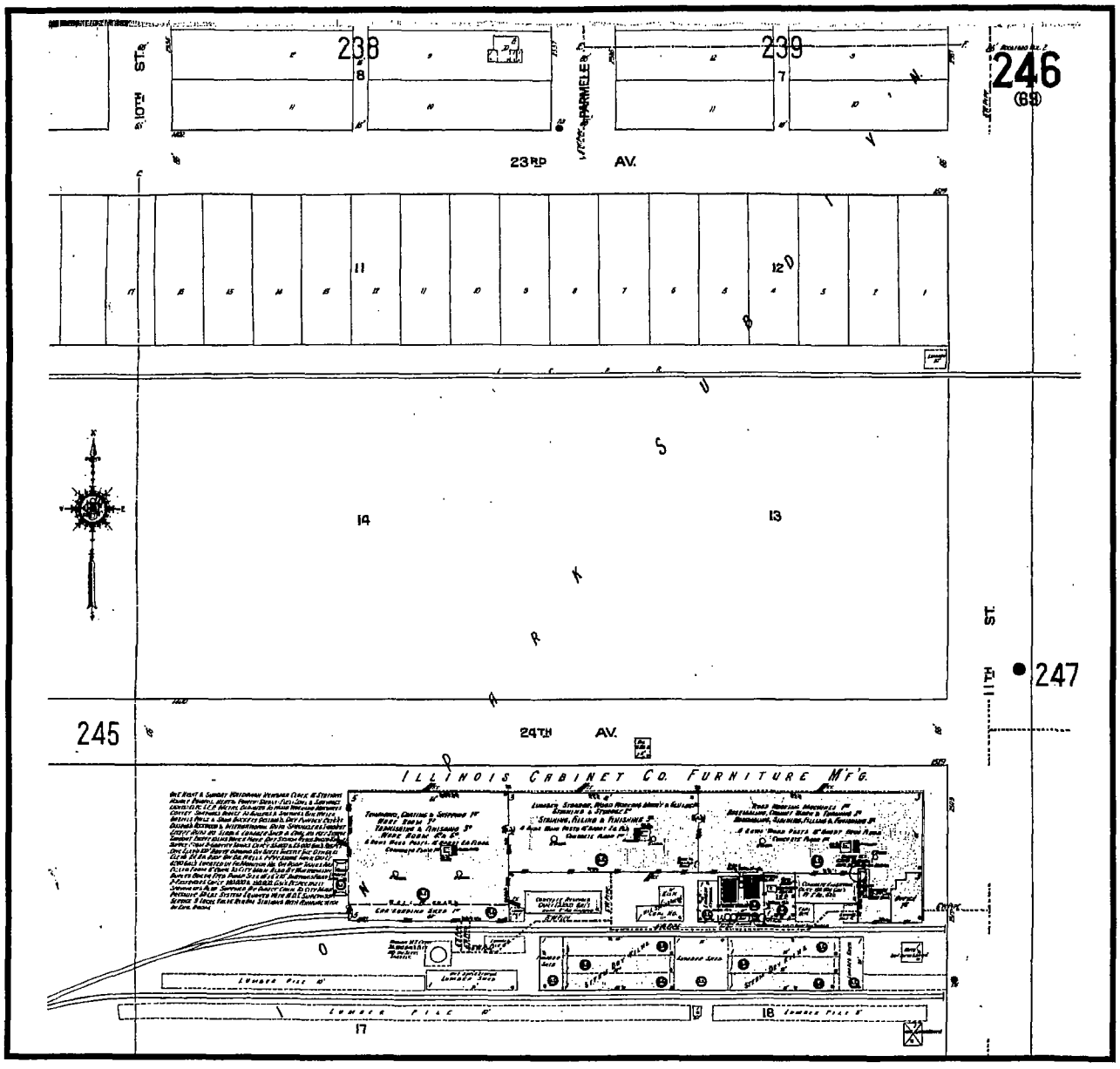
1963

1966



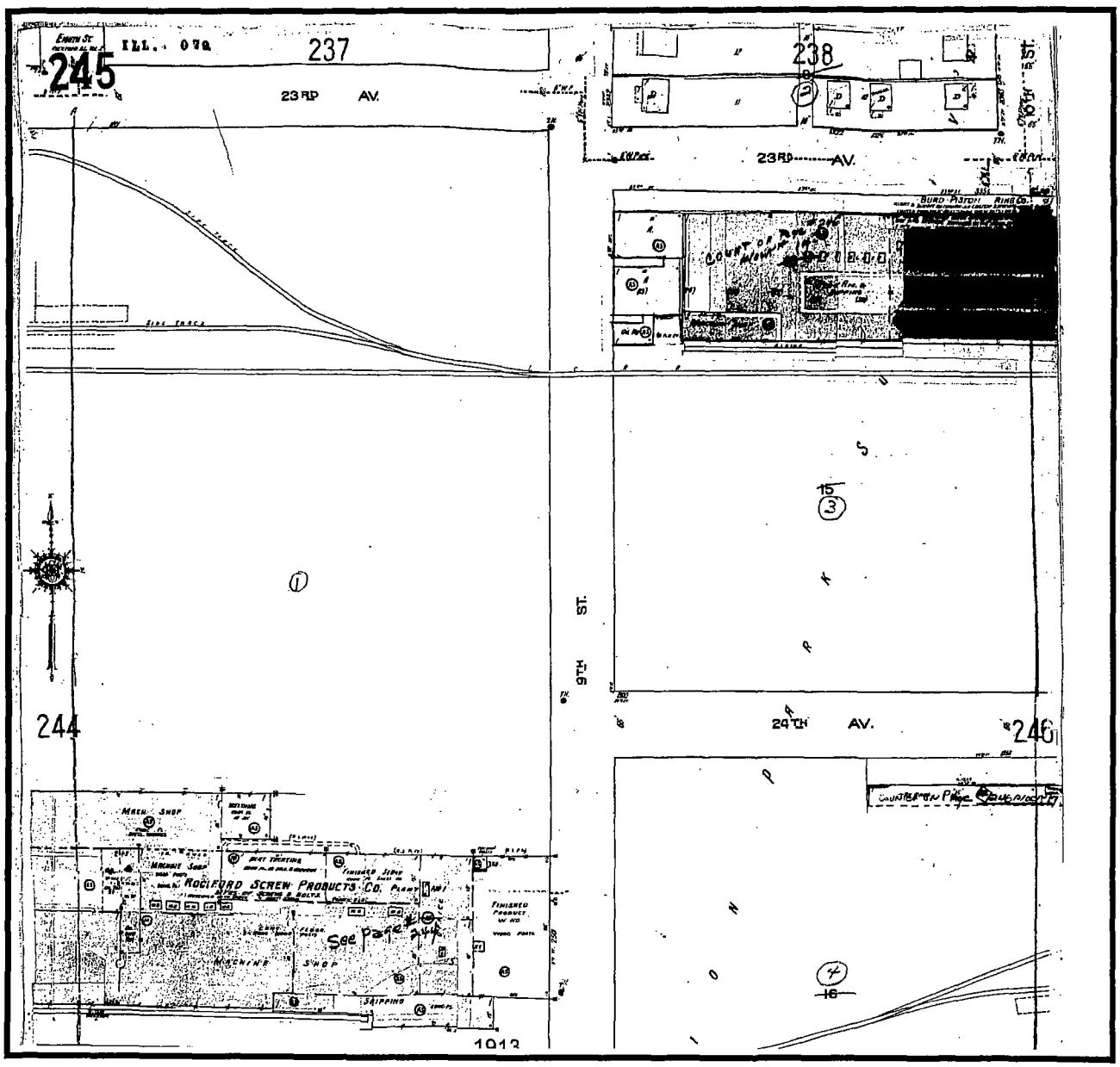
1913

Plate No. 245 246



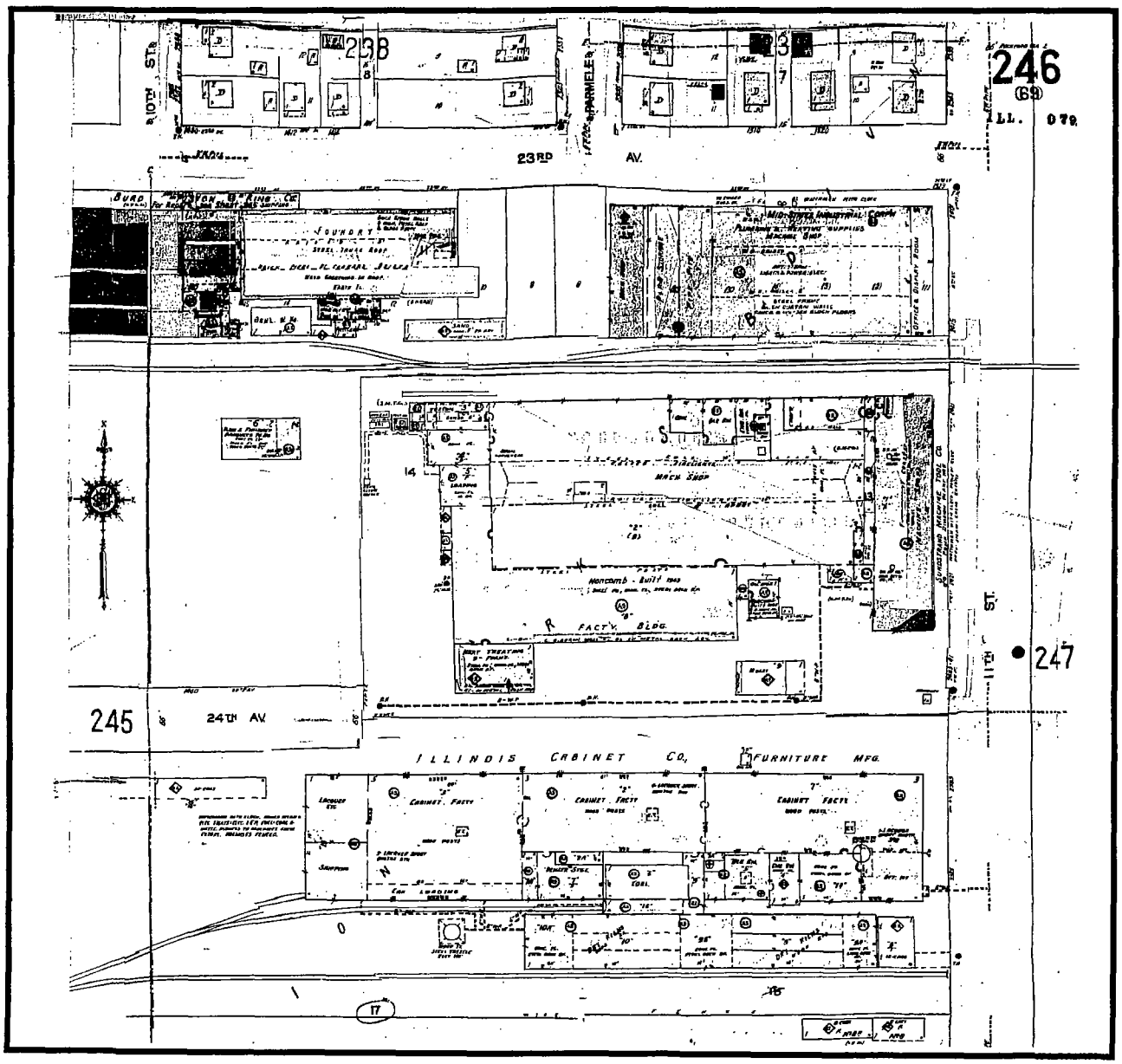
1913

Plate No. 245 246



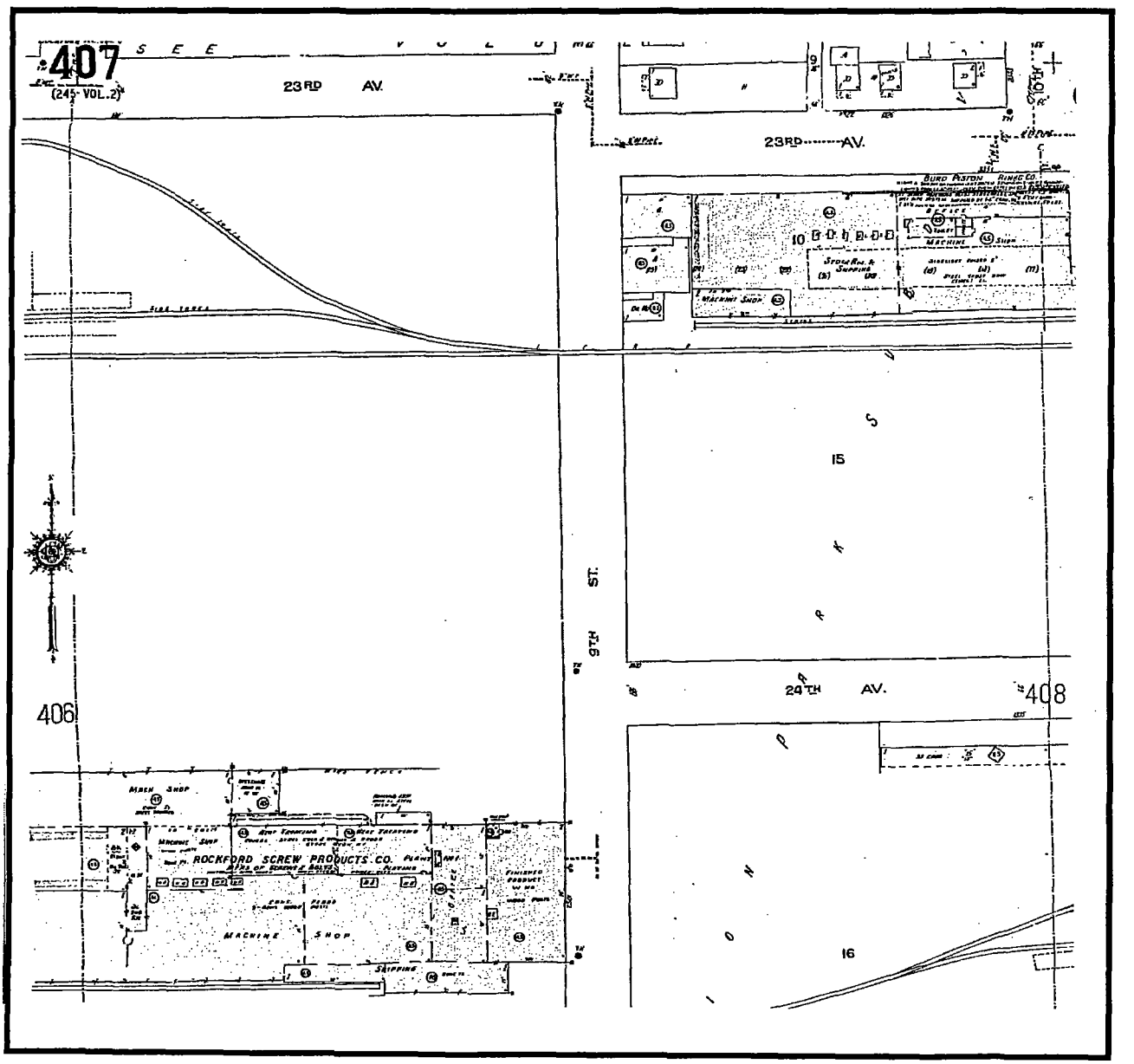
1950

Plate No. 245 246



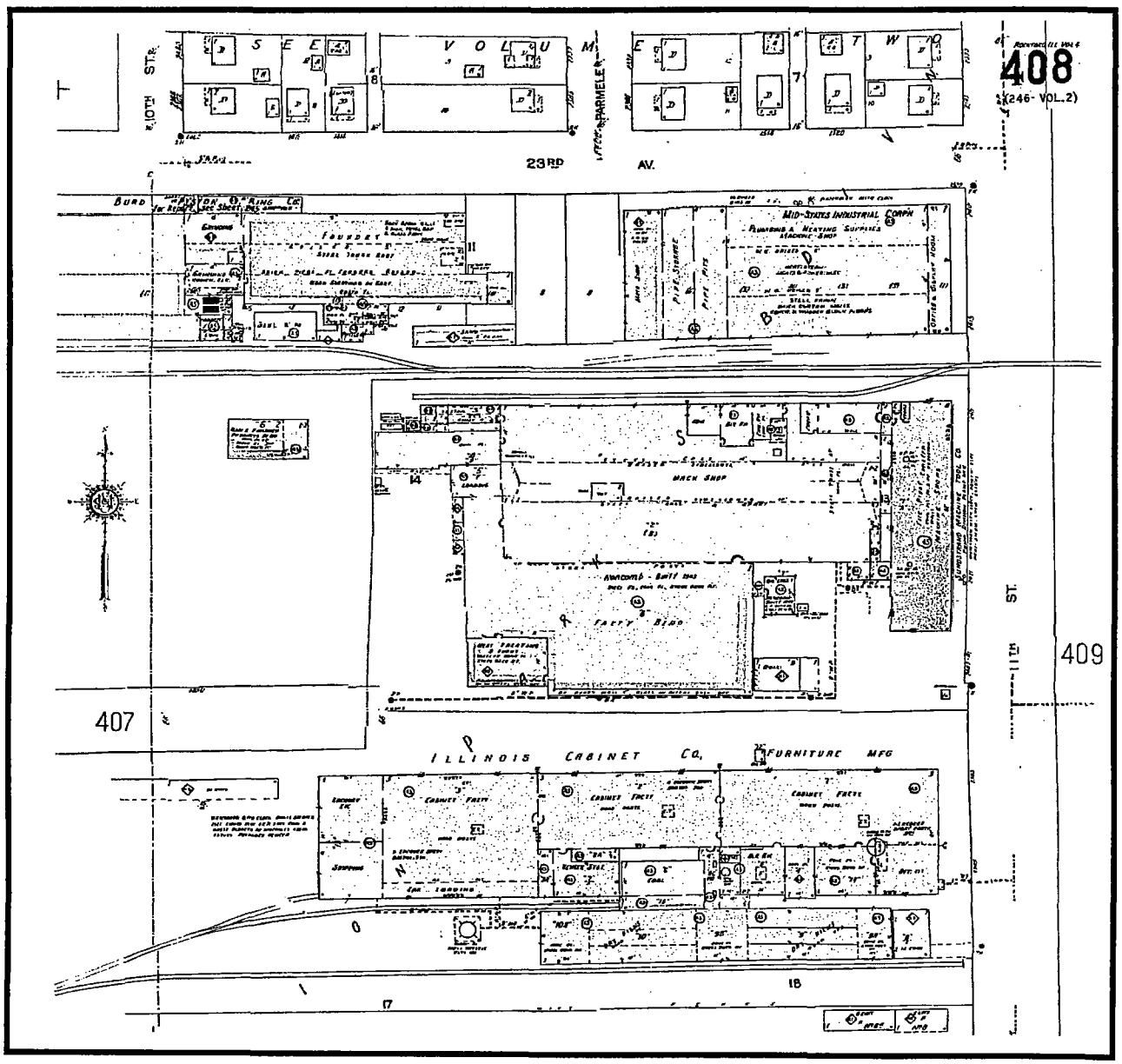
1950

Plate No. 245 246



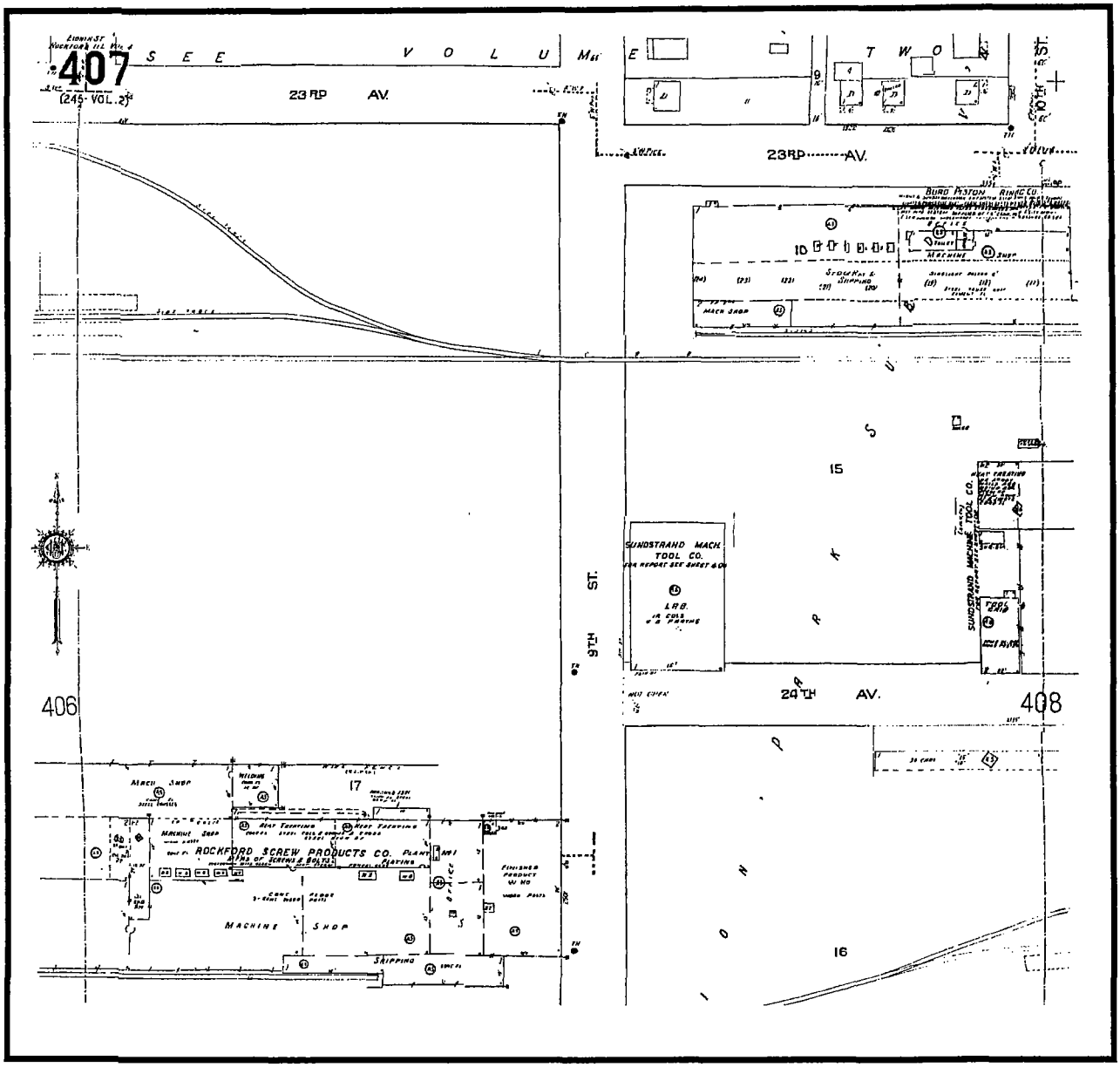
1951

Plate No. 407 408



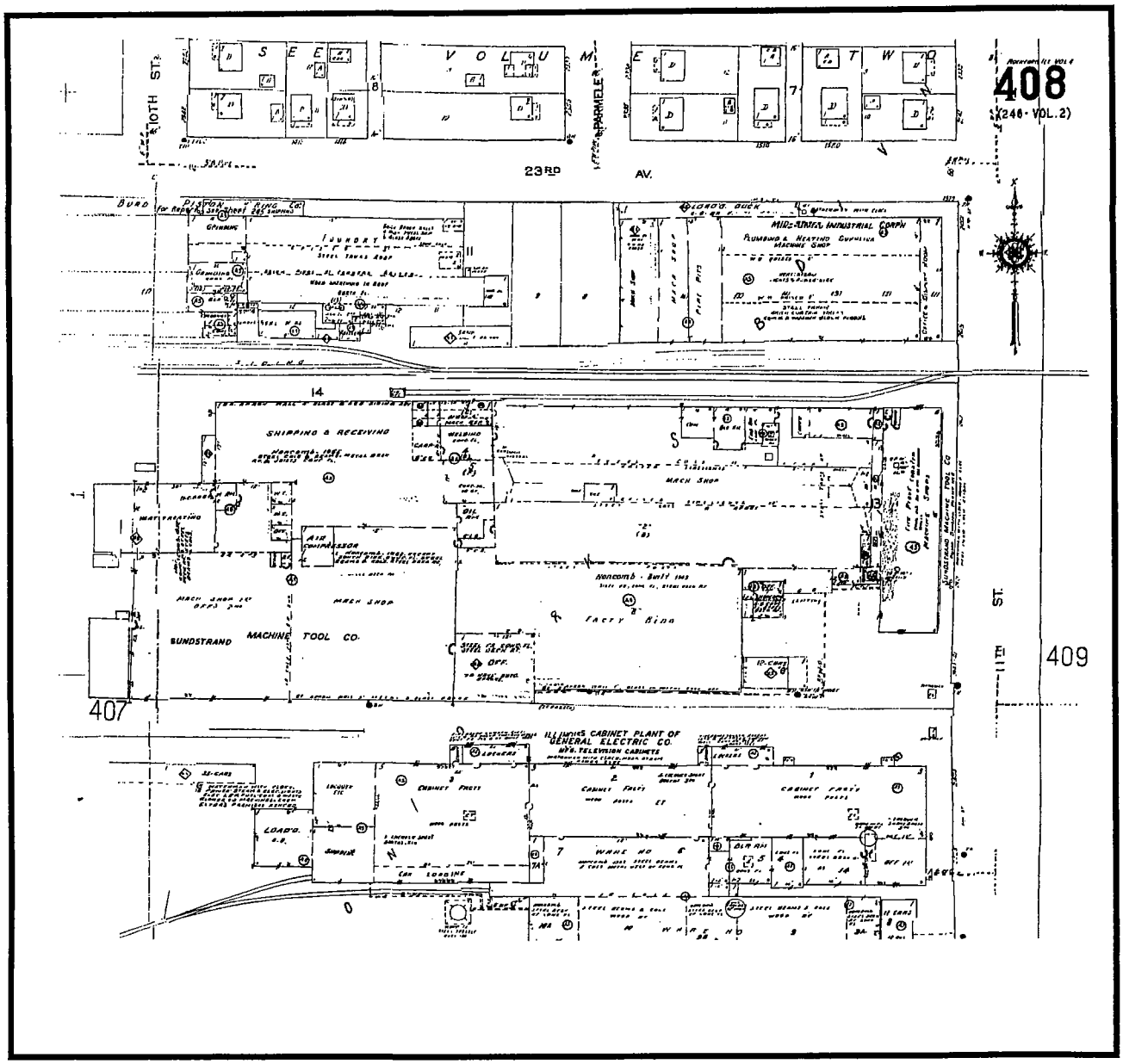
1951

Plate No. 407 408



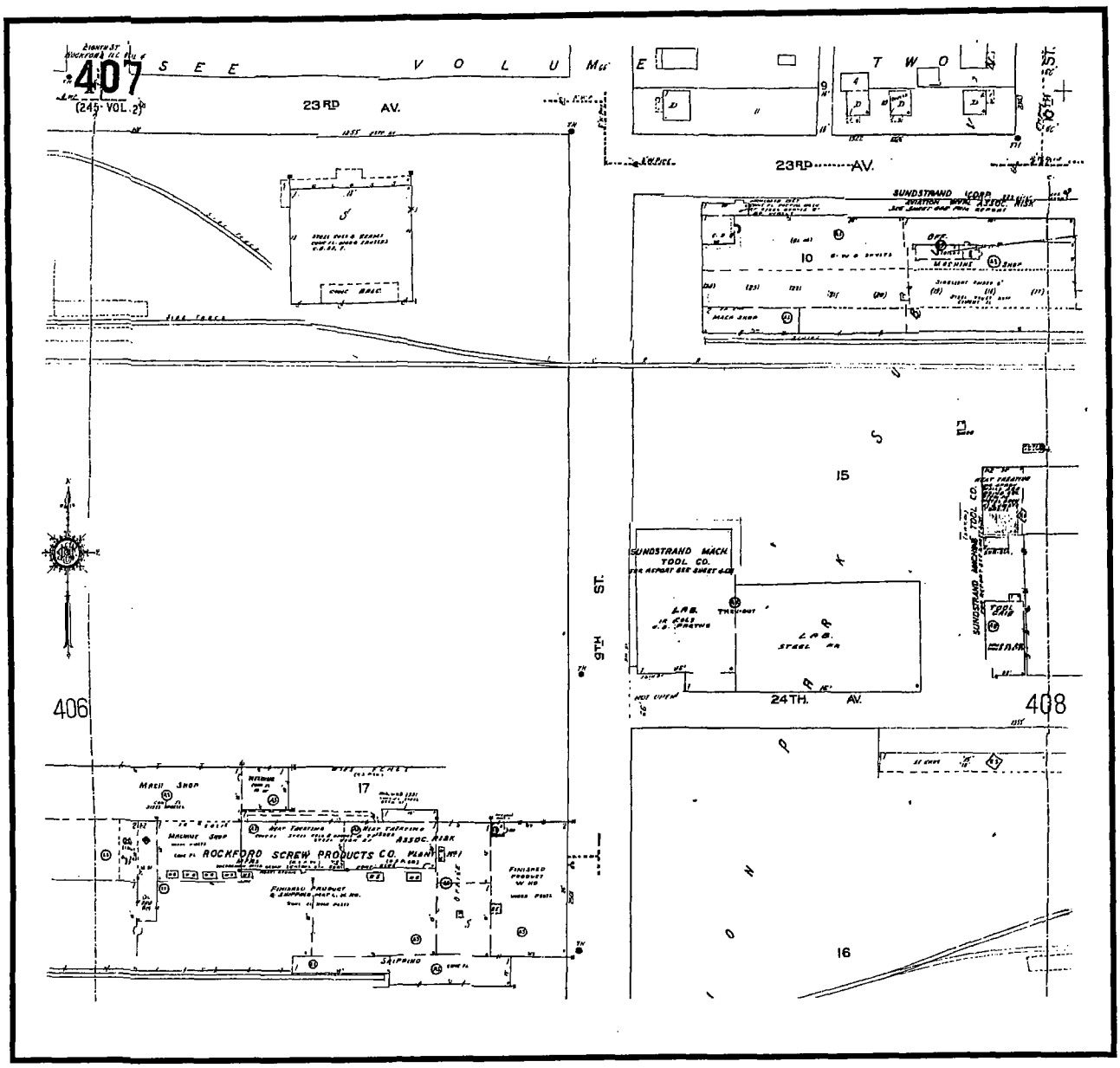
1957

Plate No. 407 408



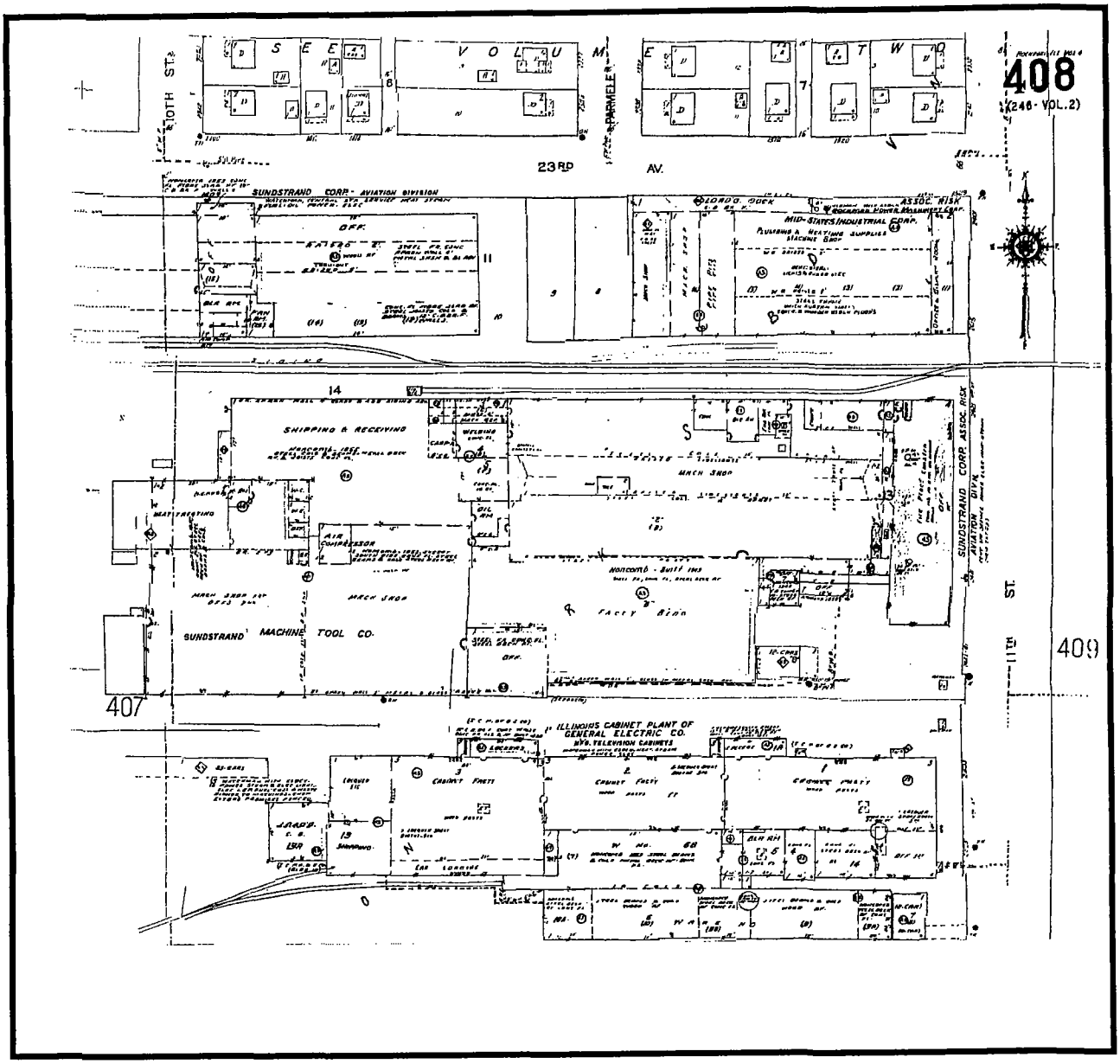
1957

Plate No. 407 408



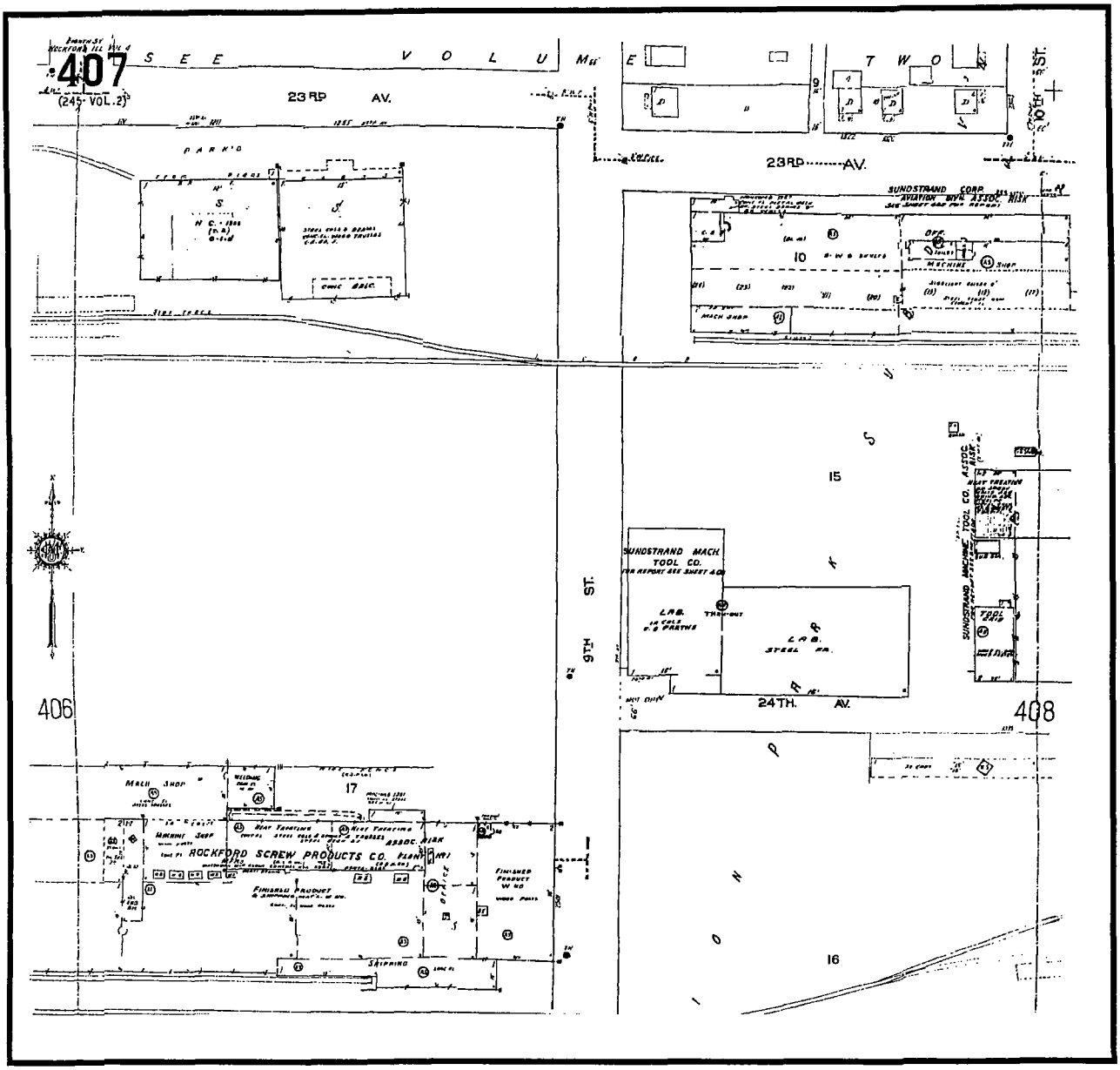
1963

Plate No. 407 408



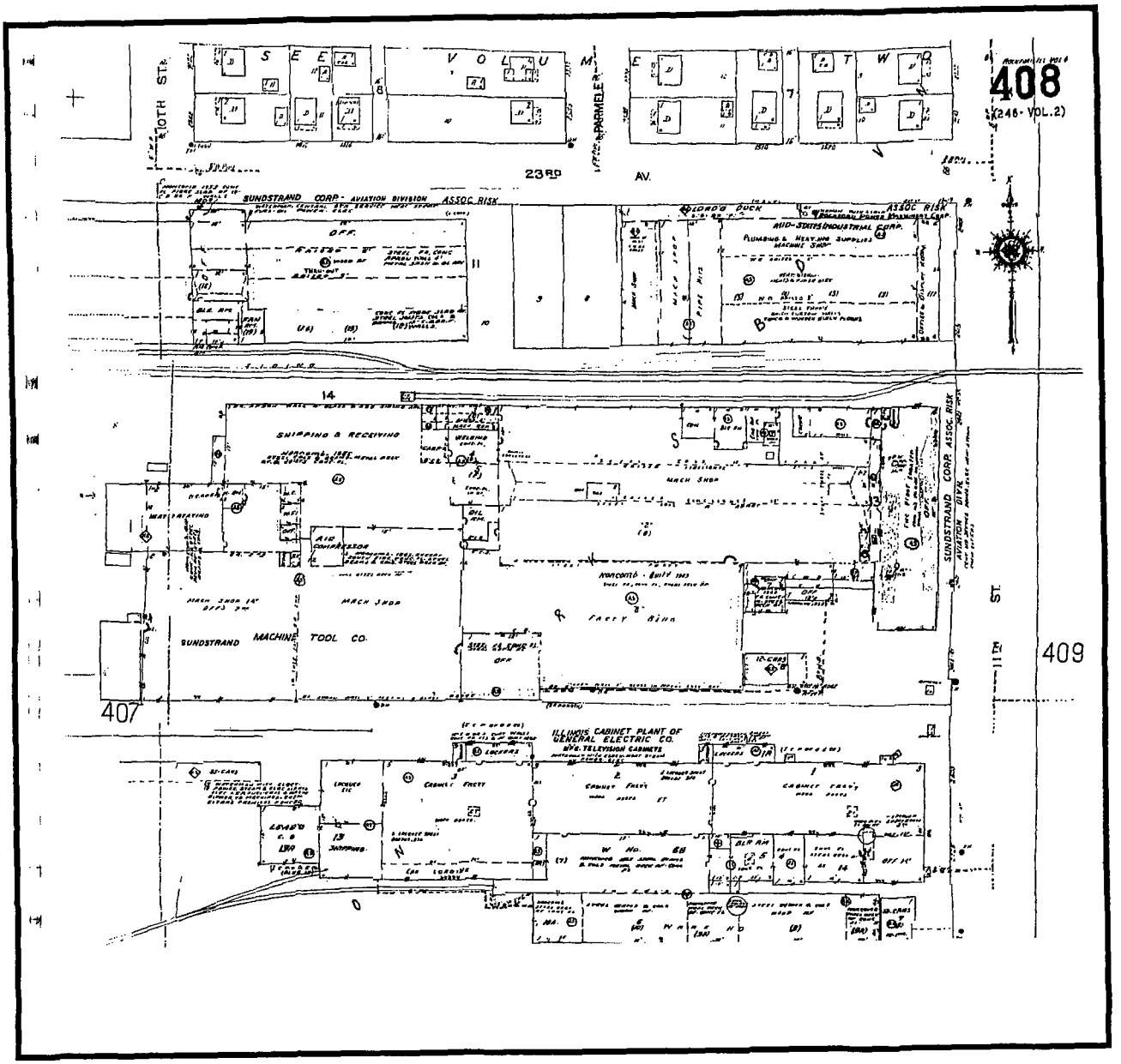
1963

Plate No. 407 408



1966

Plate No. 407 408



1966

Plate No. 407 408

APPENDIX B

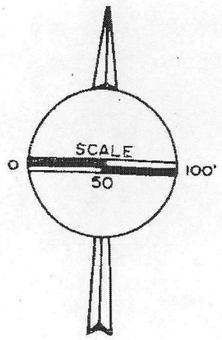
Aerial Photographs

Winnebago County Regional Planning and Development

Spring 1978 and April 1989

Winnebago County Geographic Information Systems (WinGIS)

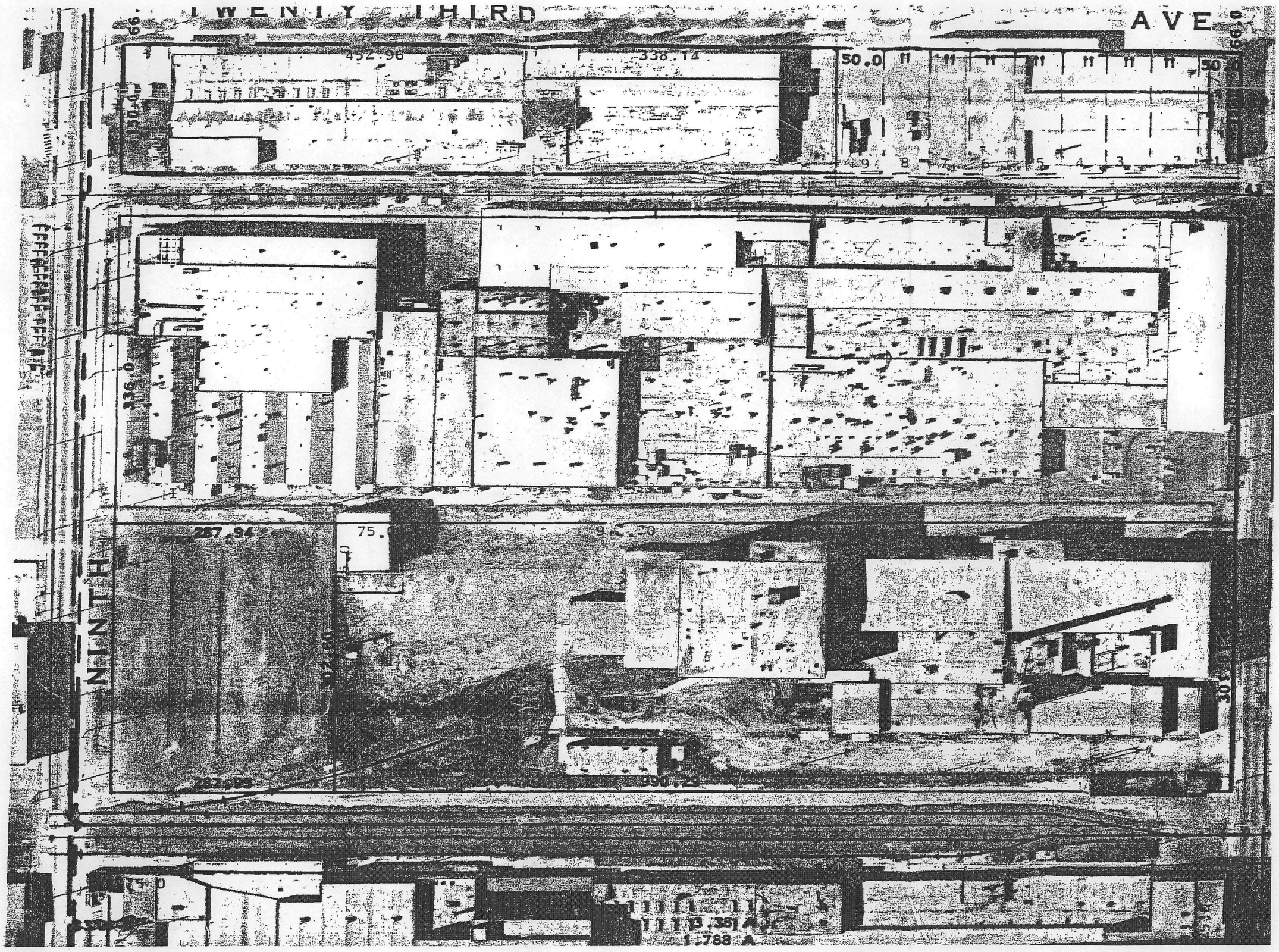
April 27, 2004

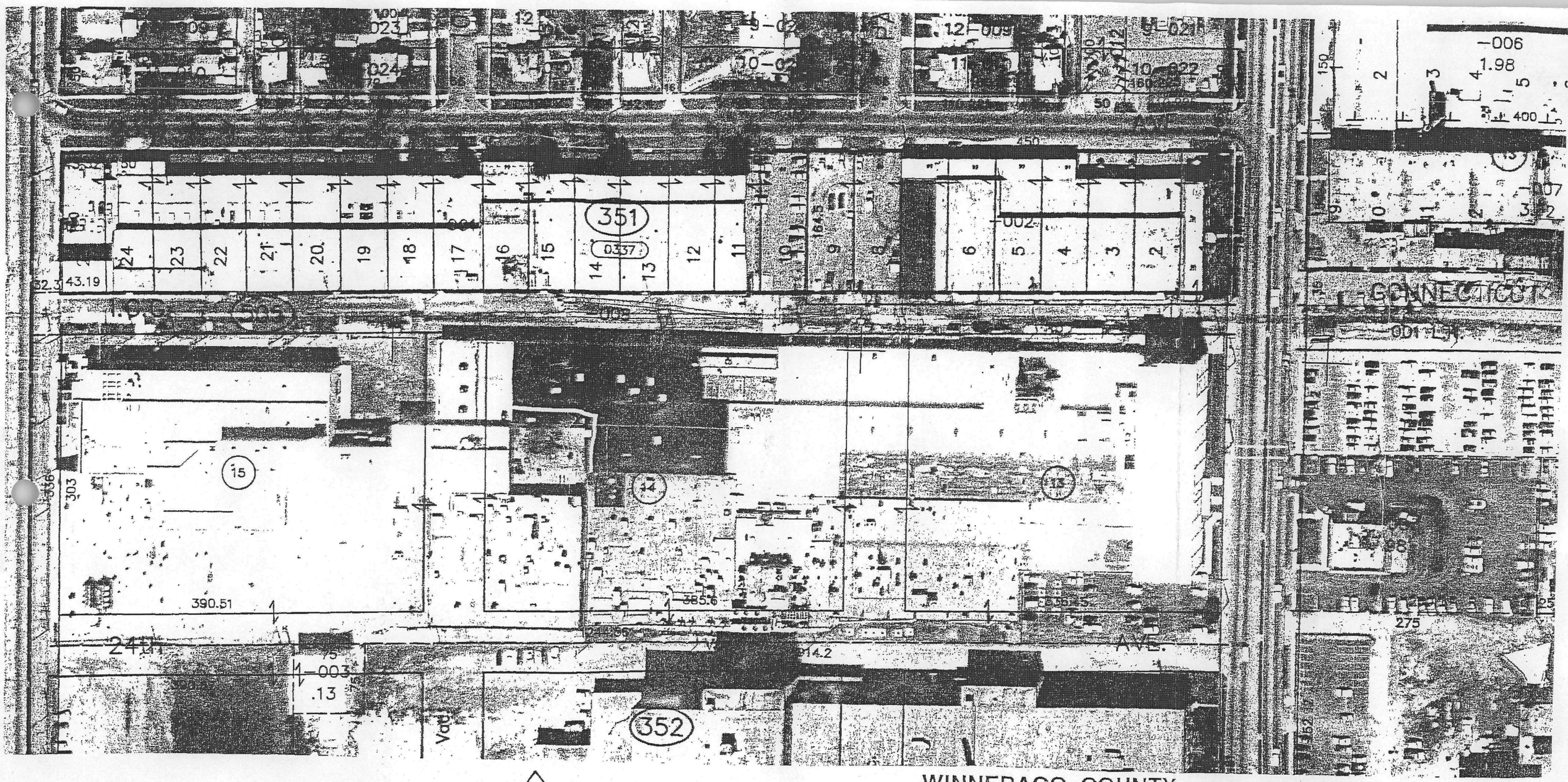


SUPERVISORS'
ASSESSMENT MAP

WINNEBAGO CO.
SPRING 1978

REVISIONS	
DATE	BY



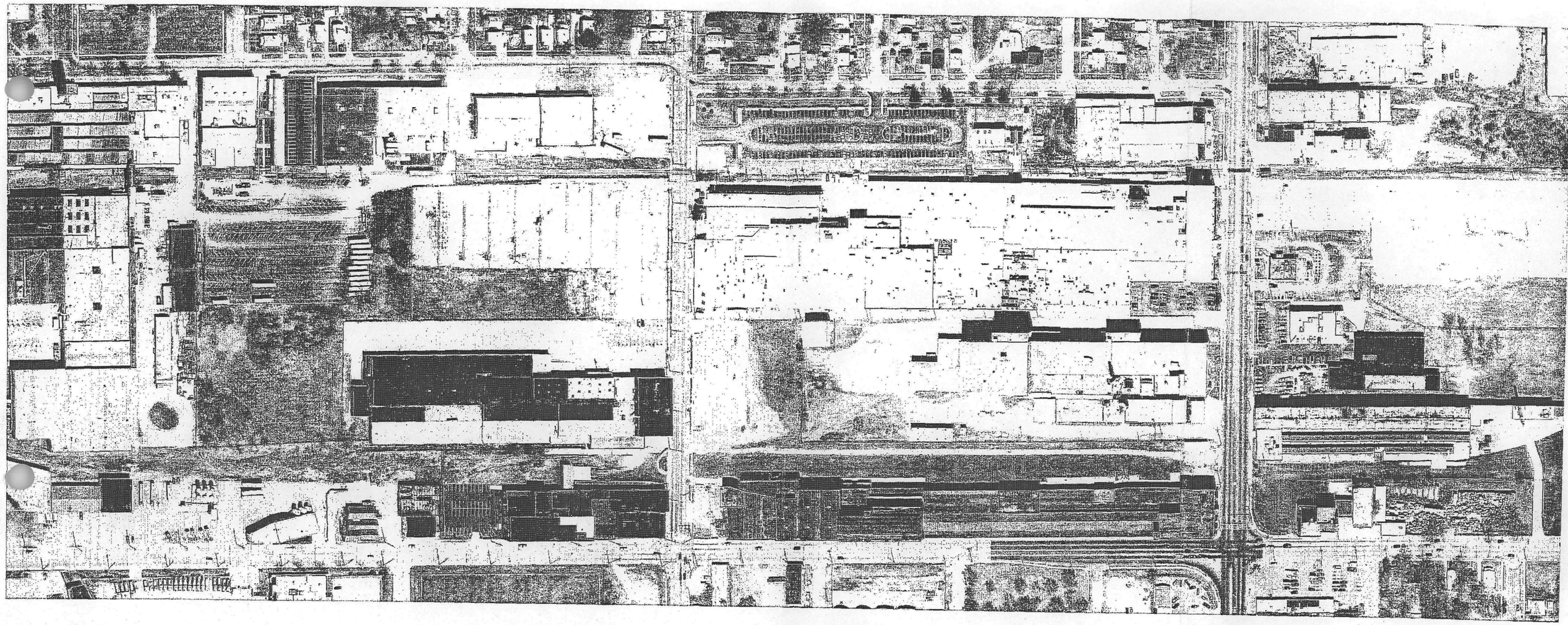


WINNEBAGO COUNTY

RECORDER of DEEDS
400 West State Street
Rockford, Illinois 61101
(815) 987-3119

DATE OF PHOTOGRAPHY: APRIL, 1989

MAP NUMBER 11-36C



N

↑

Winnebago County Geographic Information Systems (WinGIS)

April 27, 2004

APPENDIX C

Soil Boring Logs

SECOR

BORING LOG

PROJECT #: 13UN.02072.02.0001
CLIENT: Hamilton Sundstrand
SITE: Area 9/10 - Southeast Rockford
ADDRESS: Area 9/10
CITY, STATE: Rockford, Illinois
DRILLING CO.: Mid-America Drilling Company
DRILL RIG: Trac-Geoprobe
DRILLER'S NAME: Juan Luna
HELPER'S NAME: Todd Martens

BORING NO. **S1**
LOGGED BY: C. Armes
CHECKED BY: K. Wilcoxson
BORING DATE: 10-28-03
START TIME: 08:50
END TIME: 09:55
DRILLING METHOD: Hydraulic Push
WEATHER: Mostly Cloudy
TEMP: 48°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1	RD-SB-S01(0-2')-01		0	NA	Fill		0.0' - 1.0' FILL- Pea gravel.
2					Fill		1.0' - 2.0' Concrete with fill.
3	RD-SB-S01(2-4')-01		24	40.0	CL		2.0 - 6.5 CLAY with silt, dark brown, low plasticity, dry.
4							
5	RD-SB-S01(4-6')-01			50.0			
6							
7	RD-SB-S01(6-8')-01		36	2.5	SW		6.5' - 10.0' SAND (fine, medium, coarse) with some gravel, dry.
8							
9	RD-SB-S01(8-10')-01			8.5			
10							
11	RD-SB-S01(10-12')-01		48	0.0	SP		10.0' - 20.5' SAND (medium) with some fine and coarse sand, dry.
12							
13	RD-SB-S01(12-14')-01			0.0			12.0' SAND (medium and coarse) with fine gravel.
14							
15	RD-SB-S01(14-16')-01		48	0.0			
16							
17	RD-SB-S01(16-18')-01			0.0			16.0' SAND (medium).
18							
19	RD-SB-S01(18-20')-01		48	0.0			
20							
21	RD-SB-S01(20-22')-01			3.0	ML		20.5' - 22.5' SILT, tan, moist.
22							
23	RD-SB-S01(22-24')-01		48	0.0	SP		22.5' - 34.0' SAND (medium) with trace coarse sand, tan, dry.
24							
25	RD-SB-S01(24-26')-01			0.0			
26							
27	RD-SB-S01(26-28')-01		48	0.0			
28							
29	RD-SB-S01(28-30')-01			0.0			
30							
31	RD-SB-S01(30-32')-01		48	0.0			
32							
33	RD-SB-S01(32-34')-01			0.0			
34							
							34.0' End of boring.

▽ Initial water level

Soil boring was abandoned by pouring bentonite chips the total depth of the boring.

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling Company
DRILL RIG:	Trac-Geoprobe
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Todd Martens

BORING NO.	**S2**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-28-03
START TIME:	11:15
END TIME:	14:35
DRILLING METHOD:	Hydraulic Push
WEATHER:	Overcast
TEMP:	50°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1	RD-SB-S02(0-2')-01		24	NA	Fill		0.0' - 1.5' FILL-Pea gravel.
2					Fill		1.5' - 2.0' Concrete.
3	RD-SB-S02(2-4')-01			5.0	CL		2.0' - 6.0' CLAY with silt, dark brown, low plasticity, dry, hydrocarbon odor, discoloration due to staining.
4							
5	RD-SB-S02(4-6')-01		48	5.0			
6							
7	RD-SB-S02(6-8')-01			0.0	SP		6.0' - 11.0' SAND (medium) with some fine and coarse sand, medium brown, dry.
8							
9	RD-SB-S02(8-10')-01		48	0.0			
10							
11	RD-SB-S02(10-12')-01			0.0			
12							
13	RD-SB-S02(12-14')-01		48	0.0	SW		11.0' - 15.0' SAND (fine, medium, coarse) with little fine gravel, dry.
14							
15	RD-SB-S02(14-16')-01			0.0			
16					SP		15.0' - 19.0' SAND (medium and coarse), tan, dry.
17	RD-SB-S02(16-18')-01		48	0.0			16.0' SAND (medium and fine).
18							
19	RD-SB-S02(18-20')-01			0.0			
20					ML		19.0' - 21.5' SILT, tan, moist.
21	RD-SB-S02(20-22')-01		48	1.0			
22					SP		21.5' - 32.0' SAND (medium), with some fine and coarse sand, tan, moist.
23	RD-SB-S02(22-24')-01			0.0			
24							
25	RD-SB-S02(24-26')-01		48	0.0			
26							
27	RD-SB-S02(26-28')-01			0.0			
28							
29	RD-SB-S02(28-30')-01		48	0.0			
30							29.5' SAND (medium and coarse).
31	RD-SB-S02(30-32')-01			0.0			
32							
							32.0' End of boring.

▽ Initial water level

Soil boring was abandoned by pouring bentonite chips the total depth of the boring.

SECOR

BORING LOG

PROJECT #: 13UN.02072.02.0001
CLIENT: Hamilton Sundstrand
SITE: Area 9/10 - Southeast Rockford
ADDRESS: Area 9/10
CITY, STATE: Rockford, Illinois
DRILLING CO.: Mid-America Drilling Company
DRILL RIG: Trac-Geoprobe
DRILLER'S NAME: Juan Luna
HELPER'S NAME: Todd Martens

BORING NO. **S3**
LOGGED BY: C. Armes
CHECKED BY: K. Wilcoxson
BORING DATE: 10-28-03
START TIME: 10:25
END TIME: 12:10
DRILLING METHOD: Hydraulic Push
WEATHER: Overcast
TEMP: 50°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1	RD-SB-S03(0-2')-01		24	0.0	Fill		0.0' - 1.0' Concrete.
2							
3	RD-SB-S03(2-4')-01			0.0	CL		1.0' - 6.0' CLAY with silt, dark brown, low plasticity, dry.
4							
5	RD-SB-S03(4-6')-01		36	0.0			
6							
7	RD-SB-S03(6-8')-01			0.0	SP		6.0' - 8.0 SAND' (medium), medium brown, dry.
8							
9	RD-SB-S03(8-10')-01		48	0.0	SW		8.0' - 9.0' SAND (fine, medium, coarse) with some fine gravel, dry.
10					SP		9.0' - 18.5' SAND (medium and coarse), tan, dry.
11	RD-SB-S03(10-12')-01			0.0			
12							12.0' SAND (medium and coarse), with fine gravel.
13	RD-SB-S03(12-14')-01		42	0.0			
14							
15	RD-SB-S03(14-16')-01			0.0			15.0' SAND (medium to fine).
16							
17	RD-SB-S03(16-18')-01		48	0.0			
18							
19	RD-SB-S03(18-20')-01			0.0	ML		18.5' - 21.5' SILT, tan, moist.
20							
21	RD-SB-S03(20-22')-01		48	0.0	SP		21.5' - 32.0' SAND (medium), tan, dry.
22							
23	RD-SB-S03(22-24')-01			0.0			24.0' SAND (medium), with some fine and coarse sands.
24							
25	RD-SB-S03(24-26')-01		48	0.0			
26							
27	RD-SB-S03(26-28')-01			0.0			28.0' Moist.
28							
29	RD-SB-S03(28-30')-01		48	0.0			
30							
31	RD-SB-S03(30-32')-01			0.0			
32							▽ 32.0' Wet. End of boring.

▽ Initial water level

Soil boring was abandoned by pouring bentonite chips the total depth of the boring.

SER SER - OSA AREA 2005 REVISED.GPJ SECORCHG.GDT 4/27/06

SECOR

BORING LOG

PROJECT #: 13UN.02072.02.0001
CLIENT: Hamilton Sundstrand
SITE: Area 9/10 - Southeast Rockford
ADDRESS: Area 9/10
CITY, STATE: Rockford, Illinois
DRILLING CO.: Mid-America Drilling Company
DRILL RIG: Trac-Geoprobe
DRILLER'S NAME: Juan Luna
HELPER'S NAME: Todd Martens

BORING NO. **S4**
LOGGED BY: C. Armes
CHECKED BY: K. Wilcoxson
BORING DATE: 10-29-03
START TIME: 08:25
END TIME: 09:45
DRILLING METHOD: Hydraulic Push
WEATHER: Overcast
TEMP: 41°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1	RD-SB-S04(0-2')-01		30	4.0	Fill		0.0' - 2.0' Concrete and fill.
2				12.0	CL		2.0' - 6.0' CLAY with silt, dark brown, low plasticity, dry.
3	RD-SB-S04(2-4')-01						
4							
5	RD-SB-S04(4-6')-01		36	11.0			
6							
7	RD-SB-S04(6-8')-01			2.0	SW		6.0' - 8.0' SAND (fine, medium, coarse), tan.
8							
9	RD-SB-S04(8-10')-01		48	0.0	SP		8.0' - 18.5' SAND (medium), with some coarse sand, tan, dry.
10							
11	RD-SB-S04(10-12')-01			0.0			
12							
13	RD-SB-S04(12-14')-01		24	0.0			12.0' SAND (medium and coarse), with fine gravel.
14							
15	RD-SB-S04(14-16')-01			NA			
16							
17	RD-SB-S04(16-18')-01		40	2.0			16.0' SAND (medium).
18							
19	RD-SB-S04(18-20')-01			14.0	ML		18.5' - 22.0' SILT, tan, moist.
20							
21	RD-SB-S04(20-22')-01		48	7.0			
22							
23	RD-SB-S04(22-24')-01			0.0	SP		22.0' - 32.0' SAND (medium) with some fine and coarse sand, tan, moist.
24							
25	RD-SB-S04-(24-26')-01		48	0.0			
26							26.0' SAND (medium to fine), tan.
27	RD-SB-S04(26-28')-01			0.0			
28							
29	RD-SB-S04(28-30')-01		48	0.0			29.0' SAND (medium and coarse), with some fine gravel, moist.
30							
31	RD-SB-S04(30-32')-01			0.0			
32							
							▽ 32.0' End of Boring.

▽ Initial water level

Soil boring was abandoned by pouring bentonite chips the total depth of the boring.

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling Company
DRILL RIG:	Trac-Geoprobe
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Todd Martens

BORING NO.	**S5**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-29-03
START TIME:	10:55
END TIME:	12:10
DRILLING METHOD:	Hydraulic Push
WEATHER:	Overcast
TEMP:	43°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1	RD-SB-S05(0-2')-01		24	NA	Fill		0.0' - 1.0' FILL-Pea gravel.
2					Fill		1.0' - 2.0' Concrete with fill.
3	RD-SB-S05(2-4')-01			0.0	CL		2.0' - 6.5' CLAY with silt, dark brown, low plasticity, dry.
4							
5	RD-SB-S05(4-6')-01		48	7.0			
6							
7	RD-SB-S05(6-8')-01			14.0	SW		6.5' - 12.0' SAND (fine, medium, coarse), medium brown, dry.
8							
9	RD-SB-S05(8-10')-01		48	0.0			8.0' SAND, tan, with red-orange staining.
10							
11	RD-SB-S05(10-12')-01			0.0			
12							
13	RD-SB-S05(12-14')-01		48	0.0	SP		12.0' - 19.0' SAND (medium and coarse) with fine gravel, tan, poorly sorted, dry.
14							
15	RD-SB-S05(14-16')-01			0.0			15.0' SAND, no gravel.
16							
17	RD-SB-S05(16-18')-01		48	0.0			
18							
19	RD-SB-S05(18-20')-01			0.0			
20							
21	RD-SB-S05(20-22')-01		48	5.0	ML		19.0' - 23.0' SILT, tan, moist.
22							
23	RD-SB-S05(22-24')-01			0.0			
24							
25	RD-SB-S05(24-26')-01		48	0.0	SP		23.0' - 29.0' SAND, medium, tan, moist.
26							
27	RD-SB-S05(26-28')-01			0.0			
28							
29	RD-SB-S05(28-30')-01		48	0.0	SW		29.0' - 32.0' SAND (fine, medium, coarse) with fine gravel, tan, moist.
30							
31	RD-SB-S05(30-32')-01			0.0			▽
32							32.0' End of boring.

▽ Initial water level

Soil boring was abandoned by pouring bentonite chips the total depth of the boring.

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling Company
DRILL RIG:	Trac-Geoprobe
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Todd Martens

BORING NO.	**S6**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-29-03
START TIME:	13:00
END TIME:	14:25
DRILLING METHOD:	Hydraulic Push
WEATHER:	Overcast
TEMP:	45°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1	RD-SB-S06(0-2')-01		36	0.0	Fill		0.0' - 1.0' FILL-Pea gravel.
2					Fill		1.0' - 2.0' Concrete and fill.
3	RD-SB-S06(2-4')-01			0.0	CL		2.0' - 6.0' CLAY with silt, dark brown, low plasticity, dry.
4							
5	RD-SB-S06(4-6')-01		42	0.0			
6							
7	RD-SB-S06(6-8')-01			0.0	SP		6.0' - 19.5' SAND (medium), medium brown, dry.
8							
9	RD-SB-S06(8-10')-01		42	0.0			8.0' SAND, (medium and coarse) , with little fine gravel, tan.
10							
11	RD-SB-S06(10-12')-01			0.0			
12							
13	RD-SB-S06(12-14')-01		48	0.0			
14							
15	RD-SB-S06(14-16')-01			0.0			15.0' SAND, (medium to fine).
16							
17	RD-SB-S06(16-18')-01		48	0.0			
18							
19	RD-SB-S06(18-20')-01			0.0			
20							
21	RD-SB-S06(20-22')-01		48	0.0	ML		19.5' - 21.0' SILT, tan, moist.
22							21.0' - 32.0' SAND (medium), tan, moist.
23	RD-SB-S06(22-24')-01			0.0	SP		
24							
25	RD-SB-S06(24-26')-01		48	0.0			
26							
27	RD-SB-S06(26-28')-01			0.0			
28							
29	RD-SB-S06(28-30')-01		48	0.0			29.0' SAND, (medium and coarse), with fine gravel.
30							
31	RD-SB-S06(30-32')-01			0.0			31.0' SAND (medium).
32							32.0' End of boring.

▽ Initial water level

Soil boring was abandoned by pouring bentonite chips the total depth of the boring.

SER SER - OSA AREA 2005 REVISED.GPJ SECORCHG.GDT 4/27/06

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling Company
DRILL RIG:	Trac-Geoprobe
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Todd Martens

BORING NO.	**S7**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-30-03
START TIME:	08:15
END TIME:	09:55
DRILLING METHOD:	Hydraulic Push
WEATHER:	Partly Cloudy
TEMP:	52°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1	RD-SB-S07(0-2')-01		24	NA	Fill		0.0' - 1.5' FILL-Pea gravel.
2					Fill		1.5' - 2.0' Concrete-fill.
3	RD-SB-S07(2-4')-01			5.0	CL		2.0' - 6.0' CLAY with silt, dark brown, low plasticity, dry.
4							
5	RD-SB-S07(4-6')-01		36	2.1			
6							
7	RD-SB-S07(6-8')-01			0.0	SP		6.0' - 19.0' SAND (medium), with fine gravel, medium brown, dry.
8							
9	RD-SB-S07(8-10')-01		40	2.5			8.0' SAND (medium), with some fine and coarse sand, tan.
10							
11	RD-SB-S07(10-12')-01			0.0			
12							
13	RD-SB-S07(12-14')-01		40	0.0			12.0' SAND (medium), with some coarse sand and fine gravel.
14							
15	RD-SB-S07(14-16')-01			0.0			14.0' SAND.
16							
17	RD-SB-S07(16-18')-01		48	0.0			
18							
19	RD-SB-S07(18-20')-01			0.0			
20					ML		19.0' - 20.5' SILT, tan, moist.
21	RD-SB-S07(20-22')-01		48	0.0	SP		20.5' - 32.0' SAND (medium), tan, moist.
22							
23	RD-SB-S07(22-24')-01			0.0			
24							
25	RD-SB-S07(24-26')-01		48	0.0			
26							
27	RD-SB-S07(26-28')-01			0.0			
28							28.0' SAND, (medium and coarse), with fine gravel.
29	RD-SB-S07(28-30')-01		48	0.0			
30							
31	RD-SB-S07(30-32')-01			0.0			31.0' SAND (medium), moist.
32							32.0' End of boring.

▽ Initial water level

Soil boring was abandoned by pouring bentonite chips the total depth of the boring.

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling Company
DRILL RIG:	Trac-Geoprobe
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Todd Martens

BORING NO.	**S8**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-30-03
START TIME:	11:00
END TIME:	12:15
DRILLING METHOD:	Hydraulic Push
WEATHER:	Partly Cloudy
TEMP:	63°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1	RD-SB-S08(0-2')-01		24	NA	Fill		0.0' - 1.0' FILL-Pea gravel.
2					Fill		1.0' - 2.0' Concrete and fill.
3	RD-SB-S08(2-4')-01			5.0	CL		2.0' - 6.0' CLAY with silt, dark brown, low plasticity, dry.
4							
5	RD-SB-S08(4-6')-01		30	2.1			
6							
7	RD-SB-S08(6-8')-01			0.0	SP		6.0' - 19.5' SAND (medium), with little fine gravel, medium brown, dry.
8							
9	RD-SB-S08(8-10')-01		38	2.5			8.0' SAND.
10							
11	RD-SB-S08(10-12')-01			0.0			10.0' SAND, (medium and coarse), with fine gravel.
12							
13	RD-SB-S08(12-14')-01		48	0.0			
14							
15	RD-SB-S08(14-16')-01			0.0			15.0' SAND, (medium to fine).
16							
17	RD-SB-S08(16-18')-01		48	0.0			
18							
19	RD-SB-S08(18-20')-01			0.0			
20							
21	RD-SB-S08(20-22')-01		48	4.9	ML		19.5' - 21.0' SILT, tan, moist.
22					SP		21.0' - 32.0' SAND (medium and coarse), with some fine sand, tan, moist.
23	RD-SB-S08(22-24')-01			0.0			
24							
25	RD-SB-S08(24-26')-01		48	0.0			
26							
27	RD-SB-S08(26-28')-01			0.0			
28							28.0' SAND, with little fine gravel.
29	RD-SB-S08(28-30')-01		24	0.0			
30							
31	RD-SB-S08(30-32')-01			0.0			
32							
							32.0' End of boring.

▽ Initial water level

Soil boring was abandoned by pouring bentonite chips the total depth of the boring.

SECOR

BORING LOG

PROJECT #: 13UN.02072.02.0001
CLIENT: Hamilton Sundstrand
SITE: Area 9/10 - Southeast Rockford
ADDRESS: Area 9/10
CITY, STATE: Rockford, Illinois
DRILLING CO.: Mid-America Drilling
DRILL RIG: Trac-GeoProbe
DRILLER'S NAME: Juan Luna
HELPER'S NAME: Todd Marten

BORING NO. **S9**
LOGGED BY: C. Armes
CHECKED BY: K. Wilcoxson
BORING DATE: 10-27-03
START TIME: 11:50
END TIME: 12:30
DRILLING METHOD: Hydraulic Push
WEATHER: Overcast
TEMP: 39°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			36	0	Fill		0.0' - 1.0' ASPHALT
2					CL		1.0' - 3.5' CLAY with silt, dark brown, low plasticity, dry.
3				0			
4							
5			30	0	SP		4.0' - 13.5' SAND (medium-coarse) with fine gravel, tan.
6							
7				0			
8							
9			42	0			9.0' SAND (medium-coarse) with some fine sand and fine gravel, tan.
10							
11	RD-SB-S09(10-12')-01			0			
12							12.0' SAND with some fine gravel.
13			48	0			
14							
15				0	SW		13.5' - 16.0' SAND (fine, medium, coarse) with some fine gravel, tan.
16							
17			48	0	SP		16.0' - 32.0' SAND (fine to medium), tan.
18							
19				0			
20							
21			48	0			
22							
23				0			
24							
25			48	0			
26							
27	RD-SB-S09(26-28')-01			0			
28							
29			48	0			
30							
31				0			
32							
							32.0' End of boring.

Upon completion the boring was filled with bentonite chips from the total depth of the boring to surface grade.

SECOR

BORING LOG

PROJECT #: 13UN.02072.02.0001
CLIENT: Hamilton Sundstrand
SITE: Area 9/10 - Southeast Rockford
ADDRESS: Area 9/10
CITY, STATE: Rockford, Illinois
DRILLING CO.: Mid-America Drilling
DRILL RIG: Trac-GeoProbe
DRILLER'S NAME: Juan Luna
HELPER'S NAME: Todd Martens

BORING NO. **S10**
LOGGED BY: C. Armes
CHECKED BY: K. Wilcoxson
BORING DATE: 10-27-03
START TIME: 09:30
END TIME: 10:20
DRILLING METHOD: Hydraulic Push
WEATHER: Overcast
TEMP: 41°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			36	0	Fill		0.0' - 1.0' ASPHALT.
2					Fill		1.0' - 6.0' FILL, gravel and sand fill.
3				0			
4							
5			12	NM			
6							
7				NM	CL		6.0' - 12.0' CLAY with silt and sand.
8							
9			36	NM			
10							
11				NM			
12							
							12.0' REFUSAL - End of boring.

Upon completion the boring was filled with bentonite chips from the total depth of the boring to surface grade.

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Trac-GeoProbe/D-120
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Todd Martens

BORING NO.	**S10 (Offset)**
LOGGED BY:	M. Densmore
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-12-03
START TIME:	09:00
END TIME:	10:00
DRILLING METHOD:	Hydraulic Push/HSA
WEATHER:	Overcast
TEMP:	46°F PAGE 1 of 1

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1					Fill		0.0' - 0.5' ASPHALT.
2				0			0.5' - 11.0' FILL - sand and gravel.
3			36				
4							
5							
6				0	Fill		
7							
8			24				
9							
10							
11	RD-SB-S10-(10-11)			1.2			
12					Fill		11.0' Refusal - switch from hydraulic push to hollow stem augers. Switched to hollow stem augers.
13							11.0' - 12.0' CONCRETE with rebar.
14			12	0			12.0' - 20.0' SAND (fine - medium), brown-tan. Switch to hydraulic push.
15							
16					SP		
17							
18			48	0			
19							
20							
21							20.0' - 35.0' SAND (fine - medium) and grading to coarse sand.
22							
23	RD-SB-S10-(22-23)		54	0			
24							
25							
26							
27							
28			60	0	SW		
29							
30							
31							30.0' SAND with some coarse gravel.
32							
33			60				
34				0			
35							
							35.0' End of boring.

Upon completion the boring was filled with bentonite chips from the total depth of the boring to surface grade.

SER SER - MAIN BORINGS- 2005 REVISED2.GPJ SECORCHG.GDT 4/27/06

SECOR

BORING LOG

PROJECT #: 13UN.02072.02.0001
CLIENT: Hamilton Sundstrand
SITE: Area 9/10 - Southeast Rockford
ADDRESS: Area 9/10
CITY, STATE: Rockford, Illinois
DRILLING CO.: Mid-America Drilling
DRILL RIG: Trac-GeoProbe
DRILLER'S NAME: Juan Luna
HELPER'S NAME: Todd Marten

BORING NO. **S11**
LOGGED BY: C. Armes
CHECKED BY: K. Wilcoxson
BORING DATE: 10-27-03
START TIME: 13:00
END TIME: 13:45
DRILLING METHOD: Hydraulic Push
WEATHER: Overcast
TEMP: 41°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			48	0	Fill		0.0' - 1.0' ASPHALT.
2					CL		1.0' - 4.0' CLAY with silt, dark brown, low plasticity.
3				0			
4							
5			48	0	SP		4.0' - 5.0' SAND (medium), tan.
6					SW		5.0' - 8.0' SAND (fine-medium-coarse) with fine gravel, tan.
7				0			
8							
9			48	0	SP		8.0' - 30.0' SAND (medium and coarse) with fine gravel, tan.
10							
11	RD-SB-S11(10-12')-01			0			
12							
13			48	0			12.0' SAND (coarse), with some medium.
14							
15				0			14.5' SAND (medium), with some fine.
16							
17			42	0			
18							
19				0			18.5' SAND (fine), with little medium.
20							
21			42	0			
22							
23				0			
24							
25			36	0			
26							
27	RD-SB-S11(26-28')-01			0			
28							
29			42	0			28.0' SAND (medium), moist.
30							
31				0	SW		30.0' - 32.0' SAND (fine, medium,coarse), tan, moist.
32							
							32.0' End of boring.

Upon completion the boring was filled with bentonite chips from the total depth of the boring to surface grade.

SECOR

BORING LOG

PROJECT #: 13UN.02072.02.0001
CLIENT: Hamilton Sundstrand
SITE: Area 9/10 - Southeast Rockford
ADDRESS: Area 9/10
CITY, STATE: Rockford, Illinois
DRILLING CO.: Mid-America Drilling
DRILL RIG: Trac-GeoProbe
DRILLER'S NAME: Juan Luna
HELPER'S NAME: Todd Marten

BORING NO. **S12**
LOGGED BY: C. Armes
CHECKED BY: K. Wilcoxson
BORING DATE: 10-27-03
START TIME: 10:30
END TIME: 11:45
DRILLING METHOD: Hydraulic Push
WEATHER: Overcast
TEMP: 41°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			36	0.0	Fill		0.0' - 1.0' ASPHALT.
2					CL		1.0' - 4.0' CLAY with silt, dark brown, low plasticity.
3	RD-SB-S12(2-4')-01			0.0			
4							
5			36	0.0	SW		4.0' - 11.0' SAND (fine, medium, coarse) with fine gravel, tan, dry.
6							
7				0.0			
8							
9			36	0.0			
10							
11				0.0			
12			48	0.0	SP		11.0' - 28.0' SAND (medium and coarse), tan , dry.
13							
14				0.0			14.0' SAND (medium and fine).
15							
16							
17			48	0.0			
18							
19				0.0			
20							
21			48	0.0			
22							
23				0.0			22.5' SAND (medium and coarse) with little fine gravel.
24							
25			48	0.0			
26							
27	RD-SB-S12(26-28')-01			0.0			
28							
29			48	0.0	SW		28.0' - 32.0' SAND (coarse) and GRAVEL (fine), tan, moist.
30							
31				0.0			
32							
							32.0' End of boring.

Upon completion the boring was filled with bentonite chips from the total depth of the boring to surface grade.

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Trac-GeoProbe
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Todd Marten

BORING NO.	**S13**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-27-03
START TIME:	14:50
END TIME:	15:30
DRILLING METHOD:	Hydraulic Push
WEATHER:	Scattered Showers
TEMP:	45°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			40	0	Fill		0.0' - 1.0' ASPHALT - fill.
2							1.0' - 5.0' CLAY with silt, dark brown, low plasticity, dry.
3	RD-SBD-S13(2-4')-01			0	CL		
4							
5			24	0			
6					SW		5.0' - 8.0' SAND (fine, medium, coarse) with fine gravel, tan, dry.
7				0			
8							
9			36	0			8.0' - 32.0' SAND (medium-coarse) with fine gravel, tan, dry.
10							
11				0			11.0' SAND (fine) with some medium sand.
12							
13			42	0			
14							
15				0			
16							
17			48	0			
18							
19				0			
20					SP		
21			48	0			
22							
23				0			
24							
25	RD-SBD-S13(24-26')-01		36	0			24.0' SAND (medium).
26							
27				0			
28							
29			42	0			28.0' SAND, moist.
30							
31				0			
32							
							32.0' End of boring.

Upon completion the boring was filled with bentonite chips from the total depth of the boring to surface grade.

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Trac-GeoProbe
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Todd Marten

BORING NO.	**S14**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-27-03
START TIME:	15:50
END TIME:	16:45
DRILLING METHOD:	Hydraulic Push
WEATHER:	Scattered Showers
TEMP:	45°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			42	0	Fill		0.0' - 1.0' ASPHALT
2					Fill		1.0' - 2.5' FILL - Sand and gravel.
3				0			
4					CL		2.5' - 6.5' CLAY with silt, dark brown, low plasticity, dry.
5			48	0			
6							
7				0			
8					SP		6.5' - 32.0' SAND (coarse), medium brown, dry.
9	RD-SB-S14(8-10')-01		36	0			8.0' SAND with some fine gravel.
10							
11				0			
12							
13			24	0			12.0' SAND (medium).
14							
15				0			
16							
17			48	0			16.0' SAND (medium and fine), tan.
18							
19				0			
20							
21			48	0			
22							
23				0			
24							
25	RD-SB-S14(24-26')-01		48	0			24.0' SAND (fine).
26							26.0' Moist.
27				0			
28							▽ 28.0' SAND (medium), tan, wet.
29			48	0			
30							
31				0			
32							
							32.0' End of boring.

▽ Initial water level

Upon completion the boring was filled with bentonite chips from the total depth of the boring to surface grade.

SECOR

BORING LOG

PROJECT #: 13UN.02072.02.0001
CLIENT: Hamilton Sundstrand
SITE: Area 9/10 - Southeast Rockford
ADDRESS: Area 9/10
CITY, STATE: Rockford, Illinois
DRILLING CO.: Transhield Underground Services
DRILL RIG: Trac-Geoprobe
DRILLER'S NAME: Juan Luna
HELPER'S NAME: Ivan Jimenez

BORING NO. **S15**
LOGGED BY: C. Armes
CHECKED BY: K. Wilcoxson
BORING DATE: 3-8-04
START TIME: 12:30
END TIME: 16:00
DRILLING METHOD: Hydraulic Push
WEATHER: Overcast
TEMP: 36°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1					Fill		0.0' - 0.5' ASPAHLT.
2				0.0	Fill		0.5' - 2.0' FILL, topsoil, brown-black, dry.
3			48	0.0	SP		2.0' - 5.0' SAND (medium), medium brown, dry to moist.
4							
5				0.0			
6				0.0	CL		5.0' - 7.0' CLAY with silt, low plasticity, brown, moist.
7							
8			60	0.0	SP		7.0' - 10.0' SAND (fine-medium), tan, moist.
9							
10				0.0			
11	RD-SB-S15(10-12)-01			0.0	SW		10.0' - 17.5' SAND (fine, medium, coarse), tan, moist.
12							11.0' SAND with little fine gravel.
13			60	0.0			
14							
15				0.0			
16				0.0			
17							
18			60	0.0			
19							
20				0.0			
21				5.0			
22							
23	RD-SB-S15(22-24)-01		54	6.3	SP		17.5' - 37.0' SAND (fine-medium), moist.
24							
25				0.0			
26				5.7			
27							
28			54	5.7			
29							
30				3.5			

▽ Initial water level

CONTINUED NEXT PAGE

Upon completion the boring was filled with bentonite chips from the total depth of the boring to surface grade.

SECOR

BORING LOG

BORING NO. **S15**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31			42	5.2	SP		17.5' - 37.0' SAND (fine-medium), moist. *(continued)*
32							31.5' SAND (medium-coarse).
33				7.2			
34							▽
35				4.4			
36			48	7.7			
37							
38					SW		37.0' - 40.0' SAND (fine, medium, coarse), with some gravel, wet.
39				7.2			
40							
41			60	7.2	SP		40.0' - 45.0' SAND (medium-coarse), gray, wet.
42							
43				10.1			
44							
45				6.3			
							45.0' End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich 120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING NO.	**SMW-1**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-22-03
START TIME:	08:45
END TIME:	10:40
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Scattered Showers
TEMP:	42°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1		10 15 16 11	18	0	SM		0.0' - 2.0' SILTY SAND, light brown, dry to moist.
2							
3		6 4 2 2	15	0	SP		2.0' - 20.0' SAND (medium-coarse) with little fine gravel, tan, poorly sorted, dry.
4							
5		4 4 7 9	18	0			
6							
7		5 10 12 14	15	0			6.0' SAND with some fine sand and little fine gravel, tan.
8							
9		5 10 8 12	18	0			8.0' SAND (medium) with little fine gravel.
10							
11	RD-SB-SMW01(10-12')-01	4 11 21 26	21	0			10.0' SAND (medium-coarse), tan.
12							
13		3 12 12 12	21	0			12.0' SAND (fine - medium).
14							
15		7 17 21 24	21	0			14.0' SAND (medium-coarse) with some fine and coarse gravel.
16							
17		5 14 18 29	18	0			16.0' SAND (fine).
18							
19		7 4 17 18	21	0			
20							
21		8 12 14 18	21	0	ML		20.0' - 22.0' SANDY SILT, tan, low plasticity, wet.
22							
23		7 14 18 24	24	0	SP		22.0' - 40.0' SAND (medium), tan, moist.
24							
25		10 16 24 29	24	0			
26							
27		12 14 16 18	24	0			
28							
29	RD-SB-SMW01(28-30')-01	4 11 15 21	21	0			
30							

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 730.15'. Top of Casing Elevation (MSL): 729.76'.

SECOR

BORING LOG

BORING NO. **SMW-1**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31		5 10 16 21	21	0	SP		22.0' - 40.0' SAND (medium), tan, moist. *(continued)*
32							30.0' SAND (medium-coarse).
33		7 14 17 21	21	0			
34							▽
35		6 10 10 21	24	0			
36							
37		7 14 21 17	6	0			
38							
39		12 12 14 19	12	0			
40							40.0' End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich 120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING NO.	**SMW-2**
LOGGED BY:	M. Densmore
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-21-03
START TIME:	08:15
END TIME:	10:45
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Overcast
TEMP:	54°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			12	0	CL		0.0' - 1.0' TOPSOIL - Clay with silt, black, organic, moist.
2		7 7 7 5	24	0	SM		1.0' - 3.0' SILTY SAND, brown-gray.
3							
4		3 4 4 5	18	0	SP-SM		3.0' - 5.0' SAND, silty, brown, poorly sorted.
5							
6		3 9 7 5	18	0	SP		5.0' - 25.0' SAND (fine-medium), brown-tan.
7							
8		4 4 5 7	18	0			
9							
10	RD-SB-SMW02(9-11')-01	3 4 5 8	18	0			
11							
12		9 16 17 10	18	0	SW		11.0' - 15.0' SAND (fine, medium, coarse), brown-tan.
13							
14		8 16 24 24	18	0			13.0' SAND, orange-brown.
15							
16		8 11 17 17	18	0	SP		15.0' - 29.0' SAND (fine to medium), tan.
17							
18		4 5 18 39	18	0			
19							
20		8 18 39 54	18	0			
21							
22		12 21 34 55	18	0			
23							
24		14 21 41 53	24	0			
25							
26		12 21 23 38	21	0			25.0' SAND with some coarse sand and fine gravel.
27							
28	RD-SB-SMW02(27-29')-01	15 34 30 55	18	0			27.0' SAND, moist.
29							
30		12 30			SW		29.0' - 35.0' SAND (fine, medium, coarse), tan, wet.

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 727.21'. Top of Casing Elevation (MSL): 726.76'.

SECOR

BORING LOG

BORING NO. **SMW-2**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31		20 24	18	0	SW		29.0' - 35.0' SAND (fine, medium, coarse), tan, wet. *(continued)* ▽
32		8 16	15	0			
33		16 50					
34		8 14	21	0			
35		16 20					
36		8 12	18	0	SP		35.0' - 41.0' SAND (fine to medium), tan. 36.0' SAND (*medium-coarse*), with *some fine gravel.*
37		12 16					
38		10 22	12	0			
39		27 59					
40		3 7	12	0			39.0' SAND (medium).
41		12 39					41.0' End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #: 13UN.02072.02.0001
CLIENT: Hamilton Sundstrand
SITE: Area 9/10 - Southeast Rockford
ADDRESS: Area 9/10
CITY, STATE: Rockford, Illinois
DRILLING CO.: Mid-America Drilling
DRILL RIG: Dietrich 120
DRILLER'S NAME: Larry Ranken
HELPER'S NAME: Tony Knight

BORING NO. **SMW-4**
LOGGED BY: C. Armes
CHECKED BY: K. Wilcoxson
BORING DATE: 10-23-03
START TIME: 07:45
END TIME: 09:50
DRILLING METHOD: Hollow Stem Auger
WEATHER: Scattered Clouds
TEMP: 42°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			12		Fill		0.0' - 1.0' CONCRETE-FILL.
2		5	18	0	Fill		1.0' - 4.0' FILL - Sand and gravel, dark brown, dry.
3		9 12 17					
4		4 7	12	0			
5		4 6			CL		4.0' - 8.0' CLAY with silt, dark brown, low plasticity, dry.
6	RD-SB-SMW04(5-7')-01	7 5	12	0			
7		6 10					
8		10	12	0			
9		11 12 12			SW		8.0' - 13.0' SAND (fine, medium, coarse) and GRAVEL (fine) , tan, dry.
10		9 16	6	0			
11		14 2					
12		7	3	0			
13		11 12 13					
14		7 9	15	0	SP		13.0' - 43.0' SAND (medium) with some coarse sand and fine gravel, tan, poorly sorted, dry.
15		11 15					
16		6 5	18	0			15.0' SAND (medium to fine).
17		7 14					
18		3 8	21	0			
19		5 18					
20		8 11	21	0			
21		12 20					
22		7 11	18	0			
23		17 19					
24		7 14	21	0			
25		21 24					
26		7 19	21	0			
27		21 28					
28	RD-SB-SMW04(27-29')-01	8 20	18	0			27.0' SAND (medium) with some coarse sand and fine gravel.
29		22 30					28.5' SAND (coarse) and GRAVEL (fine), tan.
30		14 20					

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 729.03'. Top of Casing Elevation (MSL): 728.59'.

SECOR

BORING LOG

BORING NO. **SMW-4**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31		24 24	18	0	SP		13.0' - 43.0' SAND (medium) with some coarse sand and fine gravel, tan, poorly sorted, dry. *(continued)*
32		10 20	18	0			30.0' SAND (fine to medium), tan, moist.
33		22 25					30.5' SAND (coarse) and GRAVEL (fine), tan, dry to moist. ▽
34		9 15	21	0			31.0' SAND (medium-coarse) and GRAVEL (fine).
35		20 22					
36		14 18	18	0			
37		20 2					37.0' SAND (medium) with little coarse sand, tan.
38		12 17	18	0			
39		17 21					39.0' SAND (medium-coarse), poorly sorted.
40		3 9	18	0			
41		12 15					41.0' SAND (medium-coarse) and GRAVEL (fine), tan.
42		3 14	18	0			
43		22 30					43.0' End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich 120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING NO.	**SMW-5**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-23-03
START TIME:	11:20
END TIME:	14:00
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Scattered Clouds
TEMP:	59°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			12		Fill		0.0' - 1.0' CONCRETE and FILL.
2		9 9 3 4	12	0	CL		1.0' - 6.0' CLAY with some silt, dark brown, low plasticity, dry.
3							
4		3 1 3 3	12	0			3.0 CLAY with trace fine sand, dark brown, low plasticity.
5							
6	RD-SB-SMW05(5-7')-01	3 3 6 7	12	0			
7					SW		6.0' - 7.0' SAND (fine, medium, coarse) and some fine gravel, tan, dry.
8		4 7 11 17	15	0	SP		7.0' - 43.0' SAND (medium), tan, dry.
9							
10		5 17 24 34	15	0			
11							10.5' SAND (medium and coarse) and some fine gravel.
12		8 14 22 22	21	0			
13							
14		7 9 14 17	15	0			
15							15.0' SAND (medium) with some fine sand.
16		14 8 8 12	18	0			
17							
18		5 7 12 17	15	0			
19							
20		3 5 9 10	15	0			
21							
22		3 6 9 24	21	0			
23							
24		10 14 17 21	21	0			
25							
26		5 7 7 11	18	0			25.0' SAND (fine) with some medium sand.
27							
28	RD-SB-SMW05(27-29')-01	5 6 7 11	21	0			
29							
30		5 6					29.0' SAND (medium and coarse) and GRAVEL (fine), tan, poorly sorted.

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 728.42'. Top of Casing Elevation (MSL): 728.00'.

SECOR

BORING LOG

BORING NO. **SMW-5**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31		7	18	0	SP		7.0' - 43.0' SAND (medium), tan, dry. *(continued)*
		6					
32		6					31.0' SAND (medium and coarse) with little fine gravel, tan, moist.
		4	21	0			
33		5					▽
		6					
34		6					
		6	3	0			
35		6					
		5					
36		6					
		8	3	0			
37		8					
		12					37.0' SAND (medium) with some fine, wet.
38		2					
		3	18	0			
39		4					
		6					
40		2					
		3	18	0			
41		6					
		12					
42		12					41.0' SAND (medium and coarse) and GRAVEL (fine), tan.
		16	18	0			
43		33					
		60					
							43.0' End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Trac-Geoprobe
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Ivan Jimenez

BORING NO.	**SMW-6**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-8-04
START TIME:	9:30
END TIME:	11:40
DRILLING METHOD:	Hydraulic Push
WEATHER:	Mostly Cloudy
TEMP:	36°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			48	0.0	CL		0.0' - 0.5' TOP SOIL, clay with silt, organic, black, moist.
2					Fill		0.5' - 3.5' FILL, bricks and rubble.
3				0.0			1.0' FILL, coarse sand and gravel.
4							
5				0.0	CL		3.5 - 7.5' CLAY with silt, dark brown, moist.
6			36	0.0			5.0' CLAY with silt, black.
7							
8				0.0	SP		7.5' - 12.0' SAND (medium-coarse), medium brown, loose, moist.
9							
10				0.0			10.0' SAND (fine-medium), tan.
11							
12				0.0			
13	RD-SB-SMW6(12-14')-01		36	0.0	SW		12.0' - 15.0' SAND (fine, medium, coarse), with trace fine gravel.
14							
15				0.0			
16			60	0.0	SP		15.0 - 24.75' SAND (medium-coarse).
17							
18				0.0			16.5' SAND (fine - medium).
19							
20				0.0			
21			48	0.0			
22							
23				0.0			
24							
25				5.0			
26	RD-SB-SMW6(25-27')-01		60	6.1	ML		24.75' - 25.0' SILT, moist.
27					SP		25.0' - 45.0' SAND (fine to medium), tan, dry.
28				6.1			
29							
30				6.3			

▽ Initial water level

CONTINUED NEXT PAGE

Soil boring was completed as a monitoring well on March 15, 2004.

SECOR

BORING LOG

BORING NO. **SMW-6**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31				5.2			25.0' - 45.0' SAND (fine to medium), tan, dry. *(continued)*
32							
33			48	2.6			31.5' SAND (medium-coarse) with trace little gravel, moist.
34							▽
35				54.6			
36				153.3			35.0' SAND with trace fine gravel, gray, wet.
37							
38			36		SP		
39				84.3			
40							
41				130.8			
42							
43			60	118.2			
44							
45				121.3			
							45.0' End of Boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Trac-Geoprobe
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Ivan Jimenez

BORING NO.	**SMW-7**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-9-04
START TIME:	09:00
END TIME:	13:00
DRILLING METHOD:	Hydraulic Push
WEATHER:	Partly Cloudy
TEMP:	43°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			30	0.0	Fill		0.0' - 3.5' FILL, sand and gravel, tan, dry.
2							1.0' FILL, gravel and rubble, black.
3				0.0			
4							
5				0.0	SP		3.5' - 23.5' SAND (medium), medium brown, dry.
6			48	0.0			
7							
8				0.0			7.5' SAND (medium-coarse), with little fine gravel.
9							
10				0.0			
11	RD-SB-SMW7(10-12)-01		60	0.0			10.0' SAND with some fine, moist.
12							
13				0.0			12.0' SAND (fine-medium).
14							
15				0.0			
16			60	0.0			15.0' SAND, tan.
17							
18				0.0			
19							
20				0.0			
21			54	0.0			
22							
23				0.0			
24							
25	RD-SB-SMW7(24-25)-01			0.0	SW		23.5' - 25.0' SAND (fine, medium, coarse), with some fine gravel, moist.
26			60	0.0	SP		25.0' - 27.5' SAND (fine-medium), moist.
27							
28				0.0	SW		27.5' - 45.0' SAND (fine, medium, coarse) with some fine gravel, dry to moist.
29							
30				0.0			

▽ Initial water level

CONTINUED NEXT PAGE

Soil boring was completed as a monitoring well on March 19, 2004.

SECOR

BORING LOG

BORING NO. **SMW-7**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31				8.0			27.5' - 45.0' SAND (fine, medium, coarse) with some fine gravel, dry to moist. *(continued)*
32							
33			48	8.7			30.0' SAND with subrounded gravel, moist. ▽
34							
35				8.9			
36				8.7			35.0' SAND, wet.
37							
38			54	12.2	SW		37.0' SAND with little fine gravel, tan.
39							38.5' SAND with little fine and coarse gravel.
40				52.8			
41				66.8			40.0' SAND, gray.
42							
43			60	41.4			42.0' SAND with little fine gravel, subrounded.
44							
45				50.9			43.5' SAND.
							45.0' End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich 120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING NO.	**SMW-8**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-25-03
START TIME:	08:00
END TIME:	11:00
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Partly Cloudy
TEMP:	42°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			0		Fill		0.0' - 1.0' ASPHALT.
2			0	0	Fill		1.0' - 4.0' FILL - Sand (medium) and fine to coarse gravel, tan, dry.
3							
4		5 6	12	0			
5		7 11			CL		4.0' - 7.0' CLAY with silt, dark brown, low plasticity, dry.
6		5 5	9	0			
7		5 6					
8		5 6	15	0	SP		7.0' -10.0' SAND (medium), tan.
9		8 17					
10	RD-SB-SMW08(9-11')-01	5 3	15	0			
11		2 6			SW		10.0' - 11.0' SAND (fine, medium, coarse), tan.
12		7 10	15	0	SP		11.0' - 39.0' SAND (medium) with some fine, and trace fine gravel, tan, dry.
13		16 19					
14		17 12	15	0			
15		17 20					
16		4 8	18	0			16.0' SAND (coarse) and GRAVEL (fine), tan.
17		17 25					
18		9 11	21	0			17.0' SAND (fine) with little medium, tan.
19		8 8					
20		6 7	15	0			
21		10 17					21.0' SAND (medium).
22		6 17	18	0			
23		12 33					
24		5 15	18	0			
25		18 24					25.0' SAND with little fine and coarse sand.
26		5 14	15	0			
27		15 27					27.0' SAND (medium).
28		4 11	18	0			
29		17 20					
30	RD-SB-	11 11					29.0' SAND (coarse) with some medium, with trace fine gravel, moist.

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 729.27'. Top of Casing Elevation (MSL): 728.84'.

SECOR

BORING LOG

BORING NO. **SMW-8**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31	SMW08(29-31')-01	12	15	0	SP		11.0' - 39.0' SAND (medium) with some fine, and trace fine gravel, tan, dry. *(continued)*
		19					
32		9	18	0			
		16					
33		17					▽ 33.0' SAND (coarse) and GRAVEL (fine), tan, wet.
		9					
34		10	18	0			
		16					
35		22					
		25					
36		1	18	0			
		3					
37		5					
		11					
38		9	18	0			
		12					
39		25					38.0' SAND (fine) with some medium, tan.
		20					
40		3	24	0	SW		39.0' - 43.0' SAND (fine, medium, coarse) with fine gravel, tan, wet.
		8					
41		10					
		10					
42		5	24	0			
		9					
43		35					
		35					43.0' End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Mike Swanson
HELPER'S NAME:	Ivan Jimenez

BORING NO.	**SMW-9**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-16-04
START TIME:	09:10
END TIME:	15:09
DRILLING METHOD:	Hollow Stem Augers
WEATHER:	Overcast
TEMP:	34°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1							0.0' - 100.0' BLIND DRILL. (See Boring Log for SMW-10 for Geologic Description.)
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

CONTINUED NEXT PAGE

Ground surface Elevation (MSL): 728.81' Top of Casing Elevation (MSL): 728.37'

SECOR

BORING LOG

BORING NO. **SMW-9**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
26							0.0' - 100.0' BLIND DRILL. (See Boring Log for SMW-10 for Geologic Description.) *(continued)*
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							
53							

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-9**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
54							0.0' - 100.0' BLIND DRILL. (See Boring Log for SMW-10 for Geologic Description.) *(continued)*
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-9**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
83							0.0' - 100.0' BLIND DRILL. (See Boring Log for SMW-10 for Geologic Description.) *(continued)*
84							
85							
86							
87							
88							
89							
90							
91							
92							
93							
94							
95							
96							
97							
98							
99							
100							100.0' End of boring.

SECOR

BORING LOG

PROJECT #: 13UN.02072.02.0001
CLIENT: Hamilton Sundstrand
SITE: Area 9/10 - Southeast Rockford
ADDRESS: Area 9/10
CITY, STATE: Rockford, Illinois
DRILLING CO.: Transhield Underground Services
DRILL RIG: Trac-Geoprobe
DRILLER'S NAME: Juan Luna
HELPER'S NAME: Ivan Jimenez

BORING NO. **SMW-10**
LOGGED BY: M. Densmore
CHECKED BY: K. Wilcoxson
BORING DATE: 3-4-04
START TIME: 08:00 (3/4/04)
END TIME: 16:30 (3/5/04)
DRILLING METHOD: Hydraulic Push
WEATHER: Overcast
TEMP: 42°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			54	0.0	Fill		0.0' - 0.5' FILL - Asphalt and gravel.
2					SP		0.5' - 2.5' SAND, poorly graded with clay, black. dry.
3				0.0	CL		2.5' - 8.0' CLAY with silt, some sand, low plasticity, dark brown, moist.
4							
5				0.0			
6			60	0.0			5.0' CLAY with silt.
7							
8				0.0			
9					SW		8.0' - 15.0' SAND (fine, medium, coarse) with some gravel (less gravel at base), brown.
10				0.0			
11			60	0.0			10.0' SAND with gravel (subrounded with some clasts larger that 1 inch), brown-tan.
12							
13				0.0			
14							
15				0.0			
16			60	0.0	SP		15.0' - 34.0' SAND (fine-medium), brown-tan.
17							
18				0.0			
19							
20				0.0			
21			60	0.0			20.0' SAND, tan.
22							
23				0.0			
24							
25				0.0			
26			60	0.0			
27							
28				0.0			
29							
30				0.0			

▽ Initial water level

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-10**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31			60	0.0	SP		15.0' - 34.0' SAND (fine-medium), brown-tan. *(continued)*
32							30.0' SAND (fine-medium), tan-brown.
33				0.0			▽
34							
35				0.0	SW		34.0' - 37.0' SAND (fine, medium, coarse), tan-brown, little fine gravel, wet.
36			60	44.3			
37							
38				104	SP		37.0' - 40.0' SAND (fine-medium), tan-brown.
39							
40				158			
41			60	119	SW		40.0' - 42.0' SAND (fine, medium, coarse), tan.
42							
43				51.2	SP		42.0' - 50.0' SAND with some subrounded gravel (1/4 to 1/2 inch), tan-gray.
44							
45				138			
46			60	71			
47							
48							
49				25.3			
50							
51			60	0.0	SW		50.0' - 65.0' SAND (fine, medium, coarse), tan-brown.
52							
53				0.0			52.5' SAND with GRAVEL (fine to coarse), subrounded.
54							
55				0.0			
56			60	0.0			55.0' SAND with little gravel, brown-tan.
57							
58							
59				0.0			
60							
61			60	0.0			60.0' SAND, tan, moist.
62							
63							
64				0.0			63.50' SAND with fine gravel.

▽ Initial water level

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-10**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
65							
66			60	0.0	SP		65.0' - 78.0' SAND (coarse with some medium and fine), with some fine gravel, tan, moist.
67							
68				0.0			
69							
70			60	0.0			
71							
72				0.0			
73							
74				0.0			
75			60				
76				0.0			
77							
78							
79				0.0	SW		78.0' - 89.0' SAND (fine, medium, coarse) with gravel pebbles (1/4" to 1"), tan-brown.
80							
81			60	0.0			80.0' SAND with little fine gravel.
82							
83				0.0			
84							
85							
86			60	0.0			85.0' SAND, brown.
87							
88				0.0			
89							
90			60	8.0	SP		89.0' - 91.0' SAND (fine), brown
91							
92							91.0' SAND (fine-medium).
93							
94				7.2			
95							94.0' SAND (fine), brown
96			60	8.7	SW		95.0' - 102.5' SAND (fine, medium, coarse) with little fine gravel, brown-tan.
97							
98							

▽ Initial water level

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-10**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
100				9.1	SW		95.0' - 102.5' SAND (fine, medium, coarse) with little fine gravel, brown-tan. *(continued)*
101			60	5.7			
102							
103				6.8	SP		102.5' - 104.0' SAND with GRAVEL (1/4 to 1 inch, subrounded), brown.
104							
105				6.3	SW		104.0' - 108.0' SAND (fine, medium, coarse) with little fine gravel, brown-tan.
106			60				
107							
108				6.8	GW		108.0' - 110.0' GRAVEL with SAND (fine, medium, coarse), brown.
109							
110							
111				1.0	SW		110.0' - 111.0' SAND (fine, medium, coarse) with little fine gravel, brown.
112			60		GW		111.0' - 115.0' GRAVEL (fine to coarse), subrounded, with some sand, brown.
113							
114				1.7			
115							
116				3.1	SW		115.0' - 116.0' SAND (fine, medium, coarse), brown.
117					GW		116.0' - 117.0' GRAVEL (1/4 to 1 inch, subrounded).
118			60		SW		117.0' - 130.0' SAND (fine, medium, coarse), with some fine to coarse gravel, subrounded, brown.
119				4.6			
120							120.0' SAND, tan-brown.
121				6.1			
122			60				122.0' SAND, with some fine to coarse gravel, subrounded, brown.
123				3.8			123.0' SAND with little fine gravel, tan-brown.
124							
125							
126				7.4			
127			60				
128							
129				6.1			
130							
							130.0' Tool Refusal - End of Boring.
							After completion of sampling, hollow stem augers were used for monitoring well installation to a total depth of 147' bgs.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING NO.	**SMW-11 (Abandoned)**
LOGGED BY:	M. Densmore
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-14-03
START TIME:	09:30
END TIME:	12:10
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Overcast
TEMP:	41°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1–25							0.0' - 102.0' Blind drill. (See Boring Log for SMW-12 for Geologic Description).

CONTINUED NEXT PAGE

Monitoring well abandoned on March 24, 2003.

SECOR

BORING LOG

BORING NO. **SMW-11 (Abandoned)**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
26							0.0' - 102.0' Blind drill. (See Boring Log for SMW-12 for Geologic Description). *(continued)*
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							
53							

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-11 (Abandoned)**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
54							0.0' - 102.0' Blind drill. (See Boring Log for SMW-12 for Geologic Description). *(continued)*
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-11 (Abandoned)**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
83							0.0' - 102.0' Blind drill. (See Boring Log for SMW-12 for Geologic Description). *(continued)*
84							
85							
86							
87							
88							
89							
90							
91							
92							
93							
94							
95							
96							
97							
98							
99							
100							
101							
102							102.0' End of boring.

SMW-11 was abandoned on 3/24/04 by Transhield Underground Services under the supervision of Secor International. Abandonment activities included removing the top 6 feet of the PVC riser; pumping a bentonite slurry through a tremmie pipe from the base of the well; removing the well box and cover; and placing a concrete pad level with the surrounding pavement surface.

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Ivan Jimenez

BORING NO.	**SMW-11R**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-24-04
START TIME:	08:30
END TIME:	14:30
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Overcast
TEMP:	51°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1–30							0.0' - 104.0' BLIND DRILL. (See Boring Log for SMW-12 for Geologic Description. This well was installed as a replacement for SMW-11 which was damaged during construction and was abandoned.

CONTINUED NEXT PAGE

Ground surface Elevation (MSL) 728.08'. Top of Casing Elevation (MSL): 727.70'.

SECOR

BORING LOG

BORING NO. **SMW-11R**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31							0.0' - 104.0' BLIND DRILL. (See Boring Log for SMW-12 for Geologic Description. This well was installed as a replacement for SMW-11 which was damaged during construction and was abandoned. *(continued)*
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							

CONTINUED NEXT PAGE

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
65							0.0' - 104.0' BLIND DRILL. (See Boring Log for SMW-12 for Geologic Description. This well was installed as a replacement for SMW-11 which was damaged during construction and was abandoned. *(continued)*
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90							
91							
92							
93							
94							
95							
96							
97							
98							

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-11R**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
100							0.0' - 104.0' BLIND DRILL. (See Boring Log for SMW-12 for Geologic Description. This well was installed as a replacement for SMW-11 which was damaged during construction and was abandoned. *(continued)*
101							
102							
103							
104							
							104.0' End of boring.

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Trac-GeoProbe
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Todd Marten

BORING NO.	**SMW-12**
LOGGED BY:	M. Densmore
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-7-03
START TIME:	08:15 (11/7/03)
END TIME:	12:00 (11/10/03)
DRILLING METHOD:	Hydraulic Push
WEATHER:	Partly Cloudy
TEMP:	32°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1					Fill		0.0' - 1.0' CONCRETE
2					ML		1.0' - 3.5' SANDY SILT with clay, black, possible staining.
3			48	0			
4							3.5' - 35.0' SAND (fine), brown.
5							
6							5.5' SAND (fine-but coarser than above), tan.
7				0			
8			48				
9							
10							
11							
12							
13			48	0			
14							
15					SP		
16							
17							
18			48	0			
19							
20							
21							20.0' SAND (fine) with some medium grained, tan.
22							
23			60	0			
24							
25							

▽ Initial water level

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-12**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
26			60	0	SP		3.5' - 35.0' SAND (fine), brown. *(continued)*
27							
28							
29							
30							
31			60	0			31.0' SAND (fine-medium), brown, with little coarse gravel.
32							
33							▽
34							
35							
36			60	0	SW		35.0' - 45.0' SAND (fine, medium, coarse), brown.
37							
38							
39							
40							
41			60	0			43.0' SAND (fine, medium, coarse) with some gravel. 2 large 1"-1.5" clasts subangular, subrounded.
42							
43							
44							
45							
46					SP		45.0' - 46.0' SAND (fine-medium), brown.
47			60	0	SW		46.0' - 77.0' SAND (fine, medium, coarse), brown, with coarse gravel towards the base.
48							
49							
50							50.0' SAND (fine, medium, coarse), brown, with little gravel.
51			60	0			
52							
53							

▽ Initial water level

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-12**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
112			0		SW		109.0' - 127.0' SAND (fine, medium, coarse), brown, with some gravel (subrounded). *(continued)*
113							
114							
115							
116			60				
117							
118				0			
119							
120							120.0' SAND (fine, medium, coarse), brown, grading downward to gravel and sand matrix at 124'.
121			60				
122							
123							
124							
125				0			124.0' SAND (fine, medium, coarse), brown, with gravel (coarse [0.25"-1.5"]), subrounded. 125.0' SAND (fine, medium, coarse), brown, with GRAVEL (coarse [0.25"-0.5"]), subrounded.
126			60				
127							
128					GP		127.0' - 128.0' GRAVEL with brown sand (fine-coarse) matrix.
129				0	SW		128.0' - 134.0' SAND (fine, medium, coarse), brown, with little gravel (coarse [0.25"-0.5"]), subrounded, iron oxide staining.
130							
131			6	0			
132							
133							
134							
							134.0' Tool Refusal - End of boring.
							After completion of sampling, hollow stem augers were used for monitoring well installation to a total depth of 143.0' bgs.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING NO.	**SMW-13**
LOGGED BY:	M. Densmore
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-12-03
START TIME:	09:00
END TIME:	14:00
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Mostly Cloudy
TEMP:	53°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1–25							0.0' - 100.0' Blind drill. (See Boring Log for SMW-13 for Geologic Description).

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 729.09'. Top of Casing Elevation (MSL): 728.86'

SECOR

BORING LOG

BORING NO. **SMW-13**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
26							0.0' - 100.0' Blind drill. (See Boring Log for SMW-13 for Geologic Description). *(continued)*
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							
53							

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-13**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
54							0.0' - 100.0' Blind drill. (See Boring Log for SMW-13 for Geologic Description). *(continued)*
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-13**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
83							0.0' - 100.0' Blind drill. (See Boring Log for SMW-13 for Geologic Description). *(continued)*
84							
85							
86							
87							
88							
89							
90							
91							
92							
93							
94							
95							
96							
97							
98							
99							
100							
							100.0' End of boring.

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Todd Marten

BORING NO.	**SMW-14**
LOGGED BY:	M. Densmore
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-5-03
START TIME:	07:00 (11/5/03)
END TIME:	14:50 (11/6/03)
DRILLING METHOD:	Hydraulic Push
WEATHER:	Overcast
TEMP:	36°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1–5			60	0	Fill		0.0' - 5.0' FILL - CLAY (dark brown), with brick fragments and small cinders.
6–8	RD-SB-SMW14(6-7")-01		54	0	CL		5.0' - 8.0' SILTY-SANDY CLAY, dark brown to black, grading to clayey sand.
9–10			54		SP		8.0' - 35.0' SAND (fine), brown.
11–15			54	0	SP		10.0' SAND (fine-medium) with some coarse sand.
16–20			48	0	SP		
21–25			36	0	SP		
26–28	RD-SB-SMW14(27-28')-01		48	0	SP		
29–30					SP		

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-14**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31			60	0	SP		8.0' - 35.0' SAND (fine), brown. *(continued)* 30.0' SAND (fine-medium with coarse at base) with little fine gravel, moist.
32							
33							
34							
35							
36			48	0	SW		35.0' - 40.0' SAND (fine, medium, coarse) with litte fine gravel, brown.
37							
38							
39							
40							
41			48	0	GW		40.0' - 50.0' GRAVEL (fine) and sand (fine-medium-coarse), brown.
42							
43							
44							
45							
46			60	0			
47							
48							
49							
50							
51			60	0	SW		50.0' - 54.0' SAND (fine, medium, coarse), brown.
52							
53							
54							
55			0		GW		54.0' - 60.0' GRAVEL (fine and coarse [0.25" -1"]) with sand (fine, medium, coarse), sub-annuglar, sub-rounded.
56							
57							
58							
59							
60							
61			60	0	SW		60.0' - 64.0' SAND (fine, medium, coarse) with little gravel (fine-coarse [0.25" - 1"]), brown, sub-rounded.
62							
63							
64							

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-14**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
65							64.0' - 67.0' SAND (fine-medium) with some gravel (fine [0.25"-0.75"]), brown-tan.
66					SP		*(continued)*
67							65.0' SAND with some coarse sand, brown.
68			60	0	SW		67.0' - 69.0' SAND (fine, medium, coarse) with some gravel (fine and coarse [0.25"-1"]), brown.
69							
70					GW		69.0' - 70.0' GRAVEL (fine-coarse (0.25"-1")) with sand (fine-medium-coarse), brown, subrounded (gravel).
71							70.0' - 75.0' SAND (fine, medium, coarse) with little fine gravel, brown.
72							
73			60	0	SW		
74							
75							74.0' SAND with gravel (fine and coarse [0.25"-1"]), brown, subanguler, subrounded.
76							75.0' - 84.5' SAND (fine-medium-coarse), brown.
77							
78				0			77.0' SAND with little fine gravel, one coarse gravel clast (1.5"-2").
79							
80					SW		
81							80.0' SAND with little gravel, gravel percentage increases towards 84.5'.
82							
83							
84							
85				0.5			84.5' - 90.0' SILTY SAND, fined grained, brown.
86							
87							
88				0	SM		
89							
90							
91							90.0' - 95.0' SAND (fine), brown, coarser slightly towards 95'.
92							
93				0	SP		
94							
95							
96							95.0' - 100.0' SAND (fine, medium, coarse) with little subrounded gravel.
97					SW		
98				0			

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-14**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
100					SW		95.0' - 100.0' SAND (fine, medium, coarse) with little subrounded gravel. *(continued)*
101					SP		100.0' - 101.0' SAND (medium) with some coarse, brown.
102					SW		101.0' - 110.0' SAND (fine, medium, coarse) and gravel, brown, subrounded, fewer pebbles towards base.
103			60	0			
104							
105							
106							105.0' SAND (fine, medium, coarse), brown, with some gravel (fine to coarse (0.25"-1"), subrounded.
107							
108				0			
109							
110							
111					GW		110.0' - 114.5' GRAVEL (fine to coarse [0.25"-1.5"]), with sand (fine, medium, coarse), brown, subrounded & subangular (gravel).
112							
113				0.2			
114							
115					SW		114.5' - 129.0' SAND (fine, medium, coarse) with some gravel, brown, becoming more orange towards the base, fine grained sand at base.
116							
117							
118				0.5			
119							
120							
121							120.0' SAND.
122							
123			60	0.5			123.0' SAND with gravel (coarse), subrounded, brown.
124							
125							125.0' SAND, brown, with little fine gravel, coarsening downwards.
126							
127							
128			60				
129							
130				0.5	GW		129.0' - 129.5' GRAVEL (fine to coarse [0.25"-1"]), subrounded, subanguler, with brown sand.
					GP		
131				0	SM		129.5' - 130.0' GRAVEL with brown clay.
132							130.0' - 132.0' SILTY SAND, brown, fine grained, grading downwards to fine-coarse sand.
			60		GP		

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **SMW-14**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
134					GP		132.0' - 135.0' GRAVEL (coarse), subrounded clasts, with brown fine-coarse grained sand matrix. *(continued)*
135							
136					SP		135.0' - 140.0' SAND (fine), tan.
137							
138				0			
139							
140							
							140.0' Tool Refusal - End of boring.
							After completion of sampling, hollow stem augers were used for monitoring well installation to a total depth of 143.0' bgs.

SECOR

BORING LOG

PROJECT #: 13UN.02072.02.0001
CLIENT: Hamilton Sundstrand
SITE: Area 9/10 - Southeast Rockford
ADDRESS: Area 9/10
CITY, STATE: Rockford, Illinois
DRILLING CO.: Mid-America Drilling
DRILL RIG: Dietrich 120
DRILLER'S NAME: Larry Ranken
HELPER'S NAME: Tony Knight

BORING NO. **SMW-15**
LOGGED BY: C. Armes
CHECKED BY: K. Wilcoxson
BORING DATE: 10-24-03
START TIME: 08:00
END TIME: 10:30
DRILLING METHOD: Hollow Stem Auger
WEATHER: Partly Cloudy
TEMP: 42°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			12		Fill		0.0' - 1.0' Concrete.
2			24	0	Fill		1.0' - 3.0' FILL - Scrap metal fragments.
3							
4	RD-SB-SMW15(3-5')-01	4 3 5 10	15	0	CL		3.0' - 5.0' CLAY with silt, dark brown, low plasticity, dry.
5							
6		4 5 5 6	15	0	SP		5.0' - 43.0 SAND (medium) with some coarse sand and fine gravel, tan, dry.
7							
8		3 6 16 20	18	0			7.0' SAND with some coarse sand and little fine gravel.
9							
10		10 21 21 16	24	0			9.0' SAND. 9.5' SAND with some coarse sand and little fine gravel.
11							
12		8 12 16 14	21	0			11.0' SAND (medium to fine).
13							
14		8 12 15 18	18	0			
15							
16		9 12 15 20	21	0			
17							
18		8 16 16 14	21	0			
19							
20		12 14 16 17	18	0			19.0' SAND (fine).
21							
22		4 8 12 14	21	0			
23							
24		3 9 12 20	18	0			23.0' SAND (fine and medium).
25							
26		3 9 16 20	18	0			25.0' SAND (medium and coarse) with some fine gravel.
27							
28	RD-SB-SMW15(27-29')-01	21 38 35 28	21	0			27.0' SAND (coarse) with little medium sand, and some fine gravel.
29							
30		4 18					29.0' SAND (coarse and medium) with some fine gravel.

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL) : 728.33'. Top of Casing Elevation (MSL): 727.90'.

SECOR

BORING LOG

BORING NO. **SMW-15**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31		16 17	18	0	SP		5.0' - 43.0 SAND (medium) with some coarse sand and fine gravel, tan, dry. *(continued)*
32		11 18 27 30	18	0			31.0' SAND (coarse) with little medium sand and some fine gravel, moist.
33							▽
34		3 6 9 20	18	0			33.0' SAND (coarse) with little fine gravel, poorly sorted, wet.
35							
36		3 11 16 20	18	0			35.0' SAND (medium and coarse) with some fine gravel.
37							
38		1 2 5 9	12	0			37.0' SAND (coarse and medium), tan.
39							
40		1 1 11 19	21	0			
41							
42		1 15 25 25	21	0			
43							43.0' End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Trac-Geoprobe
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Ivan Jimenez

BORING NO.	**SMW-16**
LOGGED BY:	M. Densmore
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-3-04
START TIME:	10:00
END TIME:	14:00
DRILLING METHOD:	Hydraulic Push
WEATHER:	Overcast
TEMP:	39°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1					Fill		0.0' - 0.5' FILL, asphalt and gravel.
2				0.0	SP		0.5' - 2.5' SAND (fine-medium), brown, moist.
3	RD-SB-SMW16(2-4')-01		48				
4				0.0	CL		2.5' - 4.5' CLAY with silt, with some sand, dark brown, dry.
5				0.0			4.5' CLAY with silt, some gravel.
6				0.0			5.0' - 11.0' SAND (fine, medium, coarse) with some subrounded gravel, brown.
7							
8			60	0.0	SW		
9							
10				0.0			
11				0.0			
12							11.0' - 16.0' SAND grading to fine grained SILTY SAND at base.
13			60	0.0	SP		
14							
15				0.0			
16				0.0			
17					SM		16.0' - 16.25' SILTY SAND, fine, tan-brown.
18			60	0.0			16.25' - 30.0' SAND (fine), brown.
19							
20				0.0			
21				0.0			20.0' SAND (fine-medium).
22							
23	RD-SB-SMW16(22-24')-01		60	0.0	SP		
24							
25				0.0			
26				0.0			
27							
28			60	0.0			
29							
30				0.0			

▽ Initial water level

CONTINUED NEXT PAGE

Upon completion the boring was filled with bentonite chips from the total depth of the boring to surface grade.

SECOR

BORING LOG

BORING NO. **SMW-16**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31				0.0	SP		16.25' - 30.0' SAND (fine), brown. *(continued)*
32							31.0' - 45.0' SAND (fine, medium,coarse) with some subrounded gravel, brown, moist to wet.
33			60	0.0			
34							▽
35				0.0			
36				0.0			
37							
38			60		SW		
39				0.0			
40							40.0' SAND with little fine gravel, grading to fine sand at base.
41				0.0			
42							
43			60	0.0			
44							
45				0.0			
							45.0' End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Mike Swanson
HELPER'S NAME:	Ivan Jimenez

BORING NO.	**SMW-16A**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-22-04
START TIME:	08:30
END TIME:	12:00
DRILLING METHOD:	Hollow Stem Augers
WEATHER:	Clear
TEMP:	28°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1		8	18	0.0	Fill		0.0' - 0.75' FILL.
2		8			CL		0.75' - 4.0' CLAY with silt, brown, dry.
3		10	12	0.0			
4		8					
5		7	18	0.0	SP		4.0' - 10.0' SAND (fine-medium), medium brown, dry.
6		7					
7		5	24	0.0			
8		3					
9		2	12	0.0			
10		2					
11		5	18	0.0	SW		10.0' - 12.0' SAND (fine, medium, coarse), tan, moist, dry.
12		7					
13		8	18	0.0	SP		12.0' - 16.0' SAND, most fine with some medium and coarse, dry.
14		9					
15		5	14	0.0			
16		6					
17	RD-SB-SMW16A(16-18')-01	9	22	0.0	SM		16.0' - 17.0' SILTY SAND (fine), dry.
18		11			SP		17.0' - 24.0' SAND (fine), dry.
19		11					
20		12					
21		6	12	0.0			
22		7					
23		7					
24		17					
25	RD-SB-SMW16A(24-26')-01	8	12	0.0			
26		11					
27		17	12	0.0			
28		24					
29		8	16	0.0			
30		12					
		14					
		15					
25	RD-SB-SMW16A(24-26')-01	9	14	2.1	SW		24.0' - 46.0' SAND (fine, medium, coarse), dry.
26		15					
		20					
		21					
27		6	16	4.0			
28		9					
29		13					
30		15					
		9	16	4.6			
		10					
		20					
		21					

▽ Initial water level

CONTINUED NEXT PAGE

Ground surface Elevation (MSL): 727.82'. Top of Casing Elevation (MSL): 727.54'.

SECOR

BORING LOG

BORING NO. **SMW-16A**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31		6	16	6.0	SW		24.0' - 46.0' SAND (fine, medium, coarse), dry. *(continued)*
32		7 22 23					30.0' SAND, moist.
33		13 19 15	16	4.9			▽ 32.0' SAND with gravel, wet.
34							
35		11 13	20	4.2			
36		13 12					
37		5 50	12	1.4			36.0' SAND, gray.
38							
39		3 15	20	1.2			
40		50 17					
41		17 50	18	1.9			
42							
43		50 50	18	1.0			42.0' SAND with little fine subrounded gravel.
44							
45		13 50	24	0.8			
46							46.0' End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Mike Swanson
HELPER'S NAME:	Ivan Jimenez

BORING NO.	**SMW-17**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-22-04
START TIME:	12:45
END TIME:	16:45
DRILLING METHOD:	Hollow Stem Augers
WEATHER:	Partly Cloudy
TEMP:	39°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1		6	24	0.0	FIll		0.0' - 0.5' FILL-Topsoil
2		5 5 5			SP		0.5' - 4.0' SAND (medium), medium brown.
3		3	24	0.0			
4		7 7 10					
5		3 5	24	0.0	CL		4.0' - 6.0' CLAY with silt, black, low plasticity, moist.
6		5 5					
7		6 5	24	0.0	SP		6.0' - 15.75' SAND (medium), medium brown, moist.
8		5 7					
9		8 6	20	0.0			
10		6 8					
11		9 6	22	0.0			
12		6 9					
13		3 4	18	0.0			
14		4 5					
15	RD-SB-SMW17(14-16')-01	5 5	24	0.0			
16		5 6					
17		7 4	20	0.0	CL		15.75' - 16.0' CLAY, low plasticity, dark brown, moist.
18		4 5					16.0 - 32.0' SAND (medium) with some fine, medium brown, moist.
19		5 7	18	0.0			
20		7 17					
21		5 4	18	0.0			
22		5 6					
23		6 7	24	0.0	SP		22.0' SAND, (fine-medium), tan, moist.
24		7 7					
25		10 7	20	0.0			
26		10 11					
27	RD-SB-SMW17(26-28')-01	7 8	18	0.0			
28		9 12					
29		7 10	18	0.0			
30		8 12					

▽ Initial water level

CONTINUED NEXT PAGE

Ground surface Elevation (MSL): 728.01' Top of Casing Elevation (MSL): 727.72'

SECOR

BORING LOG

BORING NO. **SMW-17**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31		5	20	0.0	SP		16.0 - 32.0' SAND (medium) with some fine, medium brown, moist. *(continued)*
32		4 5 9					▽
33		4	22	0.5	SW		32.0' - 34.0' SAND (fine, medium, coarse) with little fine gravel, wet.
34		3 3 3					
35		2	24	0.5	SP		34.0' - 46.0' SAND (medium-coarse) with some gravel, wet.
36		2 3 2					
37		0	18	2.4			
38		0 1 4					
39		1	16	2.4			
40		2 4 7					
41		20	24	3.3			
42		17 14 14					
43		14	24	0.0			
44		7 7 10					
45		50	14	0.0			
46		50 50 50					46.0' End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Trac-Geoprobe
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Ivan Jimenez

BORING NO.	**SMW-18**
LOGGED BY:	M. Densmore
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-3-04
START TIME:	14:00
END TIME:	17:00
DRILLING METHOD:	Hydraulic Push
WEATHER:	Overcast
TEMP:	41°F PAGE 1 of 2

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1				1.0	Fill		0.0' - 0.5' FILL, asphalt. gravel, sand.
2	RD-SB-SMW18(1-2')-01			0.0	Fill		0.5' - 2.5' FILL, cinders and sand, black.
3			48				
4				0.0	CL		2.5' - 4.0' SANDY CLAY, dark green, dry.
5				0.0			4.0' - 7.0' SAND (fine-medium), orange-brown, dry.
6				0.0			
7							
8			60	0.0			7.0' SAND, tan-brown.
9					SP		
10				0.0			
11				0.0			
12							
13	RD-SB-SMW18(12-14')-01		60	0.0			
14					ML		13.0' - 13.25' SILT.
15				0.0			13.25' - 28.0' SAND (fine-medium), dry.
16				0.0			15.0' SAND (fine), tan.
17							
18			60				
19				0.0			
20							
21				0.0	SP		20.0' SAND (fine) with some coarse.
22							
23			60	0.0			
24							
25	RD-SB-SMW18(24-25')-01			0.0			
26				0.0			
27							
28			60	0.0			
29					SM		28.0' - 29.0' SILTY SAND (fine), tan-brown, moist.
30				0.0	SP		29.0' - 30.0' SAND (fine-medium) with little fine gravel near base, brown, dry.

▽ Initial water level

CONTINUED NEXT PAGE

Upon completion the boring was filled with bentonite chips from the total depth of the boring to surface grade.

SECOR

BORING LOG

BORING NO. **SMW-18**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31				0.0			30.0' - 44.5' SAND (fine, medium, coarse) with little fine gravel, brown, moist.
32				5.3			
33			60	170			▽ 32.0' SAND with little fine gravel, dark gray-gray, wet.
34				264			
35				270			
36				211			
37				137			
38			60	100	SW		
39				245			
40				122			
41				11			40.0' SAND with trace fine gravel, gray.
42							
43			60	13			
44							
45				7.4	SM		44.5' - 45.0' SILTY SAND, fine, light gray-tan, wet.
							45.0' End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Giles Engineering
DRILL RIG:	CME-120
DRILLER'S NAME:	Ryan Fett
HELPER'S NAME:	James McDonald

BORING NO.	**SMW-19**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-3-04
START TIME:	12:00
END TIME:	14:00
DRILLING METHOD:	Hydraulic Push/HSA
WEATHER:	Cloudy
TEMP:	50°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			24	0.0	Fill		0.0' - 0.5' ASPHALT.
2					Fill		0.5' - 3.75' FILL, mixed sand, concrete, and bricks.
3			24	0.0			
4							
5			12	0.0	CL		3.75' - 7.75' CLAY with silt, black/dark brown, moist. 4.0' CLAY with silt, dark brown/reddish brown.
6							
7			18	0.0			6.75' SANDY CLAY, brown.
8							
9	RD-SMW19(8-10)-01		16	0.0	SP		7.75' - 10.5' SAND (medium-coarse) with some fine sand, tan, moist, 8.0' SAND (medium) with some fine, orangish brown.
10							
11			24	0.0	ML		10.5' - 11.0' SILT with some sand, orangish brown, wet.
12					SP		11.0' - 27.0' SAND with mixed gravel, brown and tan, moist. 12.0' SAND (medium) with some coarse.
13			18	0.0			
14							13.5' SAND, *light brown.*
15			18	0.0			
16							
17			16	0.0			16.0' SAND, tan.
18							
19			24	0.0			
20							
21			12	0.0			
22							
23			18	0.0			
24							
25			12	0.0			
26							
27			18	0.0			
28					ML		27.0' - 27.5' SILT, tan, moist.
29	RD-SMW19(28-30)-01	10 9	24	0.0	SP		27.5' - 35.5' SAND (medium), tan, moist.
30		12 14					28.0' SAND, (medium-coarse) with some fine gravel. Switch to hollow stem augers.

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 728.71'. Top of Casing Elevation (MSL): 728.45'.

SECOR

BORING LOG

BORING NO. **SMW-19**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31		6	20	0.0	SP		27.5' - 35.5' SAND (medium), tan, moist. *(continued)*
32		6 7 6					
33		3 7	16	0.0			▽ 32.0' SAND, gray, wet.
34		8 9					33.0' SAND (medium-coarse) with gravel.
35		10 7	20	0.0			
36		8 7			SW		35.5' - 42.0' SAND (fine, medium, coarse), tan, wet.
37		1 2	12	0.0			36.0' SAND with pebbles up to 0.25" diameter.
38		4 4					
39		1 3	12	0.0			38.0' SAND with fine gravel.
40		4 6					
41		1 2	18	0.0			40.0' SAND with gravel up to 0.25" diameter.
42		3 6					
							42.0' End of boring.

At 28.0' bgs, tool refusal occurred with the hydraulic push rig. A second attempt was made approximately 1 foot away from the original borehole. Again tool refusal occurred at 28.0' bgs. Hollow stem technology was used to complete sampling and monitoring well installation to a total depth of 42.0' bgs.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Giles Engineering
DRILL RIG:	CME-120
DRILLER'S NAME:	Ryan Fett
HELPER'S NAME:	James McDonald

BORING NO.	**SMW-20**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-3-04
START TIME:	14:40 (11/2/04)
END TIME:	11:00 (11/3/04)
DRILLING METHOD:	Hydraulic Push
WEATHER:	Cloudy
TEMP:	50°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			12	0.0	Fill		0.0' - 0.5' ASPHALT.
2					Fill		0.5' - 1.5' FILL.
3			24	0.0	CL		1.5' - 8.0' CLAY with silt, dark brown, moist.
4							
5			24	0.0			
6							
7			24	0.0			
8							
9	RD-SMW20(8-10)-01		24	0.0	SW		8.0' - 16.0' SAND (fine, medium,coarse), medium brown, moist.
10							
11			24	0.0			
12							
13			24	0.0			
14							
15			24	0.0			
16							
17			24	0.0	SP		16.0' - 20.0' SAND (medium) some coarse and fine sand, brown, moist.
18							
19			24	0.0			19.0' SAND, tan.
20							
21			18	0.0	SW		20.0' - 22.5' SAND (fine, medium, coarse), tan, moist.
22							
23			24	0.0	SP		22.5' - 28.0' SAND (medium), tan, moist.
24							
25			24	0.0			
26							
27	RD-SMW20(26-28)-01		24	0.0			
28							
29			18	0.0	SW		28.0' - 36.0' SAND (fine, medium, coarse), moist.
30							

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 728.30'. Top of Casing Elevation (MSL): 727.79'.

SECOR

BORING LOG

BORING NO. **SMW-20**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31			24	0.0	SW		28.0' - 36.0' SAND (fine, medium, coarse), moist. *(continued)*
32							▽ 32.0' SAND, tan-gray, wet.
33			18	0.0			
34							
35			22	0.0			
36							
37			12	0.0	SP		36.0 - 44.0' SAND (coarse) with gravel and some medium and fine sand, gray, wet.
38							
39			16	0.0			38.0' SAND (medium) with some fine and a little coarse sand.
40							
41			24	0.0			40.0' SAND, medium with some fine and coarse sand, gray, wet.
42							
43			24	0.0			
44							44.0 End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Giles Engineering
DRILL RIG:	CME-120
DRILLER'S NAME:	Ryan Fett
HELPER'S NAME:	James McDonald

BORING NO.	**SMW-21**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-2-04
START TIME:	12:00
END TIME:	14:00
DRILLING METHOD:	Hydraulic Push
WEATHER:	Cloudy
TEMP:	50°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			8	0.0	Fill		0.0' - 0.5' ASPHALT.
2					Fill		0.5' - 1.5' FILL.
3			16	0.0	CL		1.5' - 8.0' CLAY with silt, dark brown, dry.
4							
5			18	0.0			4.0' CLAY with silt, dark to medium brown.
6							
7			24	0.0			
8							
9			18	0.0	SP		8.0' - 30.0' SAND (medium-coarse), some fine sand, some gravel, brown, dry.
10							
11	RD-SMW21(10-12)-01		24	0.0			11.0' SAND with some fine sand.
12							
13			24	0.0			
14							
15			24	0.0			14.5' SAND (medium-fine), tan.
16							
17			24	0.0			16.0' SAND(medium).
18							
19			24	0.0			
20							
21			18	0.0			
22							
23			24	0.0			
24							
25			24	0.0			
26							
27	RD-SMW21(26-28)-01		24	0.0			26.0' SAND (medium), with little gravel.
28							
29			24	0.0			
30							

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 727.72'. Top of Casing Elevation (MSL): 727.37'.

SECOR

BORING LOG

BORING NO. **SMW-21**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31			24	0.0	CL		30.0' - 32.0' CLAY with silt, little some gravel, tan, moist.
32							▽
33			18	0.0	SP		32.0' - 36.0' SAND (medium-coarse), with fine gravel, tan, wet.
34							
35			24	0.0			
36							
37			24	12.0	SW		36.0' - 44.0' SAND (fine-medium-coarse), gray, wet.
38							37.0' SAND, with some fine gravel, gray.
39			24	8.0			
40							
41			24	0.0			
42							
43			24	0.0			
44							44.0' End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Giles Engineering
DRILL RIG:	CME-120
DRILLER'S NAME:	Ryan Fett
HELPER'S NAME:	James McDonald

BORING NO.	**SMW-22**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-2-04
START TIME:	10:00
END TIME:	12:00
DRILLING METHOD:	Hydraulic Push
WEATHER:	Cloudy
TEMP:	50°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1			12	0.0	Fill		0.0' - 0.5' ASPHALT.
2					Fill		0.5' - 1.25' FILL.
3			24	0.0	CL		1.25' - 5.0' CLAY with silt, some medium sand, medium brown, dry.
4							3.0' CLAY with silt, brown.
5			16	0.0			
6							5.0' - 31.0' SAND (medium), orange, dry.
7			24	0.0			
8							7.0' SAND, tan.
9	RD-SMW22(8-10)-01		22	0.0			8.5' SAND (medium) with some coarse and trace fine sand.
10							
11			24	0.0			
12							
13			24	0.0			12.0' SAND (medium) with coarse and little to no fine sand.
14							
15			24	0.0			
16							
17			24	0.0	SP		
18							
19			24	0.0			
20							
21			12	0.0			21.0' SAND with coarse and little fine sand.
22							
23			18	0.0			
24							
25			12	0.0			24.0' SAND with some fine sand.
26							
27	RD-SMW22(26-28)-01		18	0.0			
28							
29		5	18	0.0			
30		5 5 6					

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 727.34'. Top of Casing Elevation (MSL): 726.86'.

SECOR

BORING LOG

BORING NO. **SMW-22**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31		5	18	0.0	SP		5.0' - 31.0' SAND (medium), orange, dry. *(continued)*
32		4					
		3					
		4					31.0' - 38.0' SAND (fine, medium, coarse), with fine and coarse gravel, wet.
33		4	18	0.0			
		5					
34		6					
		10					
35		6	18	0.0	SW		
		4					
36		6					
		6					
37		4	6	3.5			
		4					
38		8					
		10					
39		8	20	0.0	SP		38.0' - 44.0' SAND (medium-coarse), gray.
		10					
40		11					
		11					
41		7	24	15.0			40.0' SAND with some gravel.
		8					
42		10					
		10					
43		5	24	7.0			42.0' SAND with some gravel.
		10					
44		11					
		10					
							44.0 End of boring.

▽ Initial water level

SECOR

BORING LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Giles Engineering
DRILL RIG:	CME-120
DRILLER'S NAME:	Ryan Fett
HELPER'S NAME:	James McDonald

BORING NO.	**RW-3R**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	12-2-04
START TIME:	08:00
END TIME:	15:00
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Cloudy
TEMP:	35°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1–30							0.0' - 46.0' BLIND DRILL. Recovery well RW-3R was installed as a replacement well for RW-3 which was removed due to a recovery pump that was lodged inside the 4" diameter stainless steel casing and could not be removed. After over-drilling the concrete seal (approximately 7 feet bgs), the RW-3 recovery well was removed. The borehole was, over-drilled to a total depth of 46.0' bgs for the installation of the replacement recovery well.

▽ Initial water level

CONTINUED NEXT PAGE

SECOR

BORING LOG

BORING NO. **RW-3R**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
31							0.0' - 46.0' BLIND DRILL.
32							▽
33							Recovery well RW-3R was installed as a replacement well for RW-3 which was removed due to a recovery pump that was lodged inside the 4" diameter stainless steel casing and could not be removed. After over-drilling the concrete seal (approximately 7 feet bgs), the RW-3 recovery well was removed. The borehole was, over-drilled to a total depth of 46.0' bgs for the installation of the replacement recovery well. *(continued)*
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
							46.0' End of boring.

▽ Initial water level

APPENDIX D

Monitoring Well Construction Logs

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich 120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING/WELL NO.	**SMW-1**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-22-03
START TIME:	08:45
END TIME:	10:40
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Scattered Showers
TEMP:	42°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 40.0' (See Boring Log for SMW-1 for Geologic Description).	FLUSH WELL COVER CONCRETE SEAL BENTONITE CHIPS - 9 - 50# bags. RISER - 2" dia. PVC (schd. 40). FILTER PACK - 10 - 50# bags of #5 sand.

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 730.15'. Top of Casing Elevation (MSL): 729.76'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-1**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 40.0' (See Boring Log for SMW-1 for Geologic Description). *(continued)*	SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.
32								
33								
34							▽	
35								
36								
37								
38								
39								
40							40.0' End of boring.	STAINLESS STEEL END CAP

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich 120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING/WELL NO.	**SMW-2**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-21-03
START TIME:	08:15
END TIME:	10:45
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Overcast
TEMP:	54°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 41.0' (See Boring Log for SMW-2 for Geologic Description).	FLUSH WELL COVER CONCRETE SEAL BENTONITE CHIPS RISER - 2" dia. PVC (schd. 40). FILTER PACK - #5 Sand

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 727.21'. Top of Casing Elevation (MSL): 726.76'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-2**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 41.0' (See Boring Log for SMW-2 for Geologic Description). *(continued)*	
32								
33							▽	
34								SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.
35								
36								
37								
38								
39								
40								
41							41.0' End of boring.	STAINLESS STEEL END CAP

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich 120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING/WELL NO.	**SMW-4**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-23-03
START TIME:	07:45
END TIME:	09:50
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Scattered Clouds
TEMP:	42°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 43.0' (See Boring Log for SMW-4 for Geologic Description).	FLUSH WELL COVER CONCRETE SEAL BENTONITE CHIPS 9 - 50# bags. RISER - 2" dia. PVC (schd. 40) FILTER PACK 8 - 50# bags of #5 sand.

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 729.03'. Top of Casing Elevation (MSL): 728.59'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-4**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 43.0' (See Boring Log for SMW-4 for Geologic Description). *(continued)*	
32								
33							▽	
34								
35								
36								SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.
37								
38								
39								
40								
41								
42								
43							43.0' End of boring.	STAINLESS STEEL END CAP

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich 120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING/WELL NO.	**SMW-5**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-23-03
START TIME:	11:20
END TIME:	14:00
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Scattered Clouds
TEMP:	59°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 43.0' (See Boring Log for SMW-5 for Geologic Description).	FLUSH WELL COVER CONCRETE SEAL BENTONITE CHIPS RISER - 2" dia. PVC (schd. 40) FILTER PACK 9 - 50# bags of #5 sand.

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 728.42'. Top of Casing Elevation (MSL): 728.00'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-5**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 43.0' (See Boring Log for SMW-5 for Geologic Description). *(continued)*	
32								
33							▽	
34								
35								
36								SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.
37								
38								
39								
40								
41								
42								
43								STAINLESS STEEL END CAP
							43.0' End of boring.	

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Mike Swanson
HELPER'S NAME:	Ivan Jimenez

BORING/WELL NO.	**SMW-6**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-15-04
START TIME:	09:45
END TIME:	12:40
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Overcast
TEMP:	35°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 45.0' BLIND DRILL. (See Boring Log For SMW-6 for Geologic Description.)	STICK UP WELL COVER CONCRETE SEAL BENTONITE CHIPS 11 - 50# bags. RISER - 2" dia. PVC (schd. 40).

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 728.96'. Top of Casing Elevation (MSL): 731.29'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-6**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 45.0' BLIND DRILL. (See Boring Log For SMW-6 for Geologic Description.) *(continued)*	FILTER PACK 9 - 50# bags of #5 sand.
32								
33								
34								
35								
36								
37								
38								SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.
39								
40								
41								
42								
43								
44								
45							45.0' End of boring.	STAINLESS STEEL END CAP.

SECOR

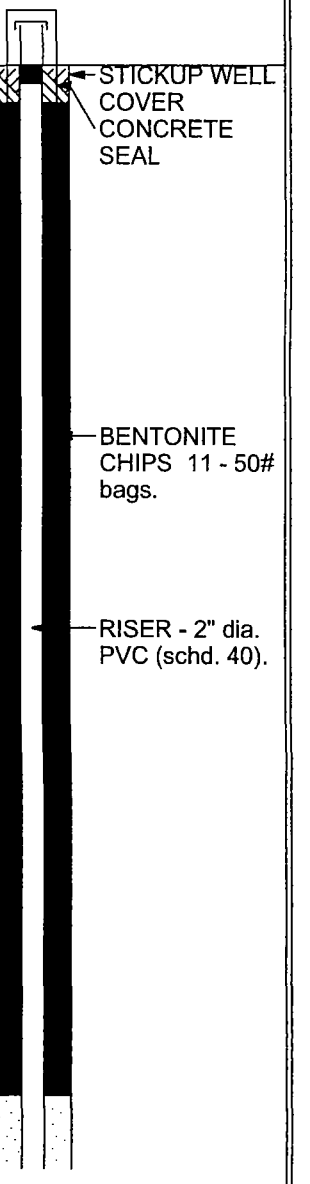
BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Mike Swanson
HELPER'S NAME:	Ivan Jimenez

BORING/WELL NO.	**SMW-7**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-19-04
START TIME:	10:00
END TIME:	12:00
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Scattered Clouds
TEMP:	41°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL
1–30							0.0' - 45.0' BLIND DRILL. (See Boring Log For SMW-7 For Geologic Description.)

WELL DIAGRAM



▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 725.54'. Top of Casing Elevation (MSL): 728.04'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-7**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 45.0' BLIND DRILL. (See Boring Log For SMW-7 For Geologic Description.) *(continued)*	FILTER PACK 4 - 50# bags of #5 sand.
32								
33								
34							▽	
35								
36								
37								
38								SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.
39								
40								
41								
42								
43								
44								
45								
							45.0' End of boring.	STAINLESS STEEL END CAP

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich 120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING/WELL NO.	**SMW-8**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-25-03
START TIME:	08:00
END TIME:	11:00
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Partly Cloudy
TEMP:	42°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 43.0' (See Boring Log for SMW-8 for Geologic Description).	FLUSH WELL COVER CONCRETE SEAL BENTONITE CHIPS 8 - 50# bags. RISER - 2" dia. PVC (schd. 40) FILTER PACK 9 - 50# bags of #5 sand.

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 729.27'. Top of Casing Elevation (MSL): 728.84'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-8**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 43.0' (See Boring Log for SMW-8 for Geologic Description). *(continued)*	
32								
33							▽	
34								
35								
36								SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.
37								
38								
39								
40								
41								
42								
43							43.0' End of boring.	STAINLESS STEEL END CAP

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Mike Swanson
HELPER'S NAME:	Ivan Jimenez

BORING/WELL NO.	**SMW-9**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-16-04
START TIME:	09:10
END TIME:	15:09
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Overcast
TEMP:	34°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–35							0.0 - 100.0' BLIND DRILL. (See Boring Log For SMW-10 for Geologic Description.)	FLUSH WELL COVER; CONCRETE SEAL

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 728.81'. Top of Casing Elevation (MSL): 728.37'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-9**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
36							0.0 - 100.0' BLIND DRILL. (See Boring Log For SMW-10 for Geologic Description.) *(continued)*	RISER - 2" dia. 304 stainless steel.
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								BENTONITE SLURRY
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-9**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
76							0.0 - 100.0' BLIND DRILL. (See Boring Log For SMW-10 for Geologic Description.) *(continued)*	
77								
78								
79								
80								
81								FILTER PACK 6 - 50# bags of #5 sand.
82								
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								
99								
100								SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.
							100.0' End of boring.	STAINLESS STEEL END CAP

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Mike Swanson
HELPER'S NAME:	Ivan Jimenez

BORING/WELL NO.	**SMW-10**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-18-04
START TIME:	08:52 (3/18/04)
END TIME:	12:00 (3/19/05)
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Overcast
TEMP:	50°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 147.0' BLIND DRILL. (See Boring Log for SMW-10 for Geologic Description.)	FLUSH WELL COVER; CONCRETE SEAL

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 728.91'. Top of Casing Elevation (MSL): 728.59'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-10**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 147.0' BLIND DRILL. (See Boring Log for SMW-10 for Geologic Description.) *(continued)*	
32							▽	
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								

BENTONITE SLURRY

RISER - 2" dia. 304 stainless steel.

▽ Initial water level

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-10**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
65							0.0' - 147.0' BLIND DRILL. (See Boring Log for SMW-10 for Geologic Description.) *(continued)*	
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								

▽ Initial water level

CONTINUED NEXT PAGE

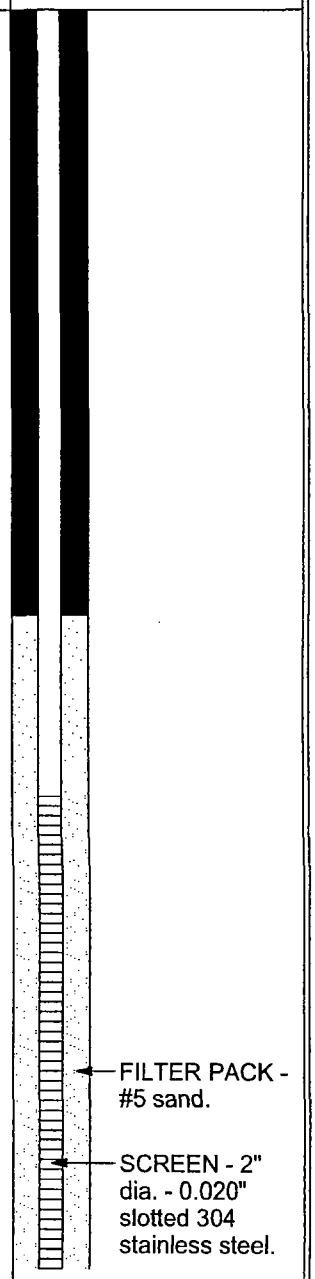
SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-10**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
100							0.0' - 147.0' BLIND DRILL. (See Boring Log for SMW-10 for Geologic Description.) *(continued)*	
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
121								
122								
123								
124								
125								
126								
127								
128								
129								
130								
131								
132								



▽ Initial water level

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-10**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
134							0.0' - 147.0' BLIND DRILL. (See Boring Log for SMW-10 for Geologic Description.) *(continued)*	
135								
136								
137								
138								
139								
140								STAINLESS STEEL END CAP
141								
142								
143								
144								FORMATION COLLAPSE
145								
146								
147							147.0' End of boring.	

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sunstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING/WELL NO.	**SMW-11 (Abandoned)**
LOGGED BY:	M. Densmore
CHECKED BY:	
BORING DATE:	11-14-03
START TIME:	
END TIME:	
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Overcast
TEMP:	41°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–25							0.0' - 102.0' Blind drill. (See Boring Log for SMW-12 for Geologic Description).	FLUSH WELL COVER; CONCRETE SEAL; RISER - 2" dia. PVC (schd. 40).

CONTINUED NEXT PAGE

Monitoring well abandoned on March 24, 2003.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-11 (Abandoned)**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
26								
27								
28								
29								
30								RISER - 2" dia. 304 stainless steel.
31								
32								
33								
34								
35								
36								
37								
38								
39								BENTONITE SLURRY
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-11 (Abandoned)**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								

CONTINUED NEXT PAGE

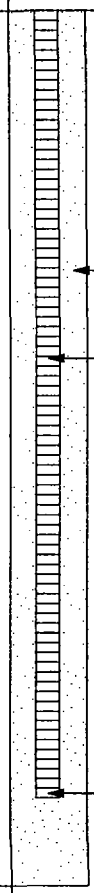
SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-11 (Abandoned)**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102							102.0' End of boring.	



SMW-11 was abandoned on 3/24/04 by Transhield Underground Services under the supervision of Secor International. Abandonment activities included removing the top 6 feet of the PVC riser; pumping a bentonite slurry through a tremmie pipe from the base of the well; removing the well box and cover; and placing a concrete pad level with the surrounding pavement surface.

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Juan Luna
HELPER'S NAME:	Ivan Jimenez

BORING/WELL NO.	**SMW-11R**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-24-04
START TIME:	08:30
END TIME:	14:30
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Overcast
TEMP:	51°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1							0.0' - 104.0' BLIND DRILL. (See Boring Log for SMW-12 for Geologic Description. This well was installed as a replacement for SMW-11 which was damaged during construction and was abandoned.	FLUSH WELL COVER; CONCRETE SEAL
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL) 728.08'. Top of Casing Elevation (MSL): 727.70'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-11R**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
26							0.0' - 104.0' BLIND DRILL. (See Boring Log for SMW-12 for Geologic Description. This well was installed as a replacement for SMW-11 which was damaged during construction and was abandoned. *(continued)*	
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								RISER - 2" dia. 304 stainless steel.
41								
42								
43								
44								
45								BENTONITE SLURRY
46								
47								
48								
49								
50								
51								
52								
53								

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-11R**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
54							0.0' - 104.0' BLIND DRILL. (See Boring Log for SMW-12 for Geologic Description. This well was installed as a replacement for SMW-11 which was damaged during construction and was abandoned. *(continued)*	
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-11R**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
83							0.0' - 104.0' BLIND DRILL. (See Boring Log for SMW-12 for Geologic Description. This well was installed as a replacement for SMW-11 which was damaged during construction and was abandoned. *(continued)*	FILTER PACK - #5 sand.
84								
85								
86								
87								
88								
89								
90								SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.
91								
92								
93								
94								
95								
96								
97								
98								
99								
100								STAINLESS STEEL END CAP
101								
102								
103								
104							104.0' End of boring.	

SECOR

BORING/WELL LOG

PROJECT #: 13UN.02072.02.0001
CLIENT: Hamilton Sundstrand
SITE: Area 9/10 - Southeast Rockford
ADDRESS: Area 9/10
CITY, STATE: Rockford, Illinois
DRILLING CO.: Mid-America Drilling
DRILL RIG: Dietrich-120
DRILLER'S NAME: Dusty Jackson
HELPER'S NAME: Jorge Jimerez

BORING/WELL NO. **SMW-12**
LOGGED BY: M. Densmore
CHECKED BY: K. Wilcoxson
BORING DATE: 11-19-03
START TIME: 07:00 (11/18/03)
END TIME: 13:00 (11/19/03)
DRILLING METHOD: Hollow Stem Auger
WEATHER: Clear
TEMP: 39°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 143.0' Blind drill. (See Boring Log for SMW-12 for Geologic Description).	FLUSH WELL COVER; CONCRETE SEAL; RISER - 2" dia. PVC (schd. 40).

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 728.12'. Top of Casing Elevation (MSL): 727.76'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-12**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31								RISER - 2" dia. 304 stainless steel.
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								BENTONITE SLURRY
60								
61								
62								
63								
64								

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-12**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-12**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
121								
122								
123								
124								
125								
126								
127								
128								
129								
130								
131								
132								

FILTER PACK - #5 Sand

SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-12**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
134								
135								
136								
137								
138								
139								
140								
141								
142								
143							143.0' End of boring.	

STAINLESS STEEL END CAP

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING/WELL NO.	**SMW-13**
LOGGED BY:	M. Densmore
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-12-03
START TIME:	09:00
END TIME:	14:00
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Mostly Cloudy
TEMP:	53°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–25							0.0' - 100.0' Blind drill. (See Boring Log for SMW-13 for Geologic Description).	WELL COVER; CONCRETE SEAL; RISER - 2" dia. PVC (schd. 40).

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 729.09'. Top of Casing Elevation (MSL): 728.86'

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-13**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
26								RISER - 2" dia. 304 stainless steel.
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								BENTONITE SLURRY
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-13**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-13**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								
99								
100							100.0' End of boring.	

FILTER PACK - #5 Sand

SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.

STAINLESS STEEL END CAP

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Dusty Jackson
HELPER'S NAME:	Jorge Jimerez

BORING/WELL NO.	**SMW-14**
LOGGED BY:	M. Densmore
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-17-03
START TIME:	07:00
END TIME:	17:00
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Overcast
TEMP:	50°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–35							0.0' - 143.0' Blind drill. (See Boring Logs for SMW-14 for Geologic Description).	FLUSH WELL COVER; CONCRETE SEAL; RISER - 2" dia. PVC (schd. 40).; RISER - 2" dia. 304 stainless steel.

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 729.47'. Top of Casing Elevation (MSL): 729.11'.

SER_COMBINE.GPJ SECORCHG.GDT 4/28/06

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-14**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								BENTONITE SLURRY
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-14**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-14**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
116								
117								
118								
119								
120								
121								
122								
123								
124								
125								
126								
127								
128								
129								
130								
131								
132								
133								
134								
135								
136								
137								
138								
139								
140								
141								
142								
143							143.0' End of boring.	

FILTER PACK - #5 Sand

SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.

STAINLESS STEEL END CAP

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Mid-America Drilling
DRILL RIG:	Dietrich 120
DRILLER'S NAME:	Larry Ranken
HELPER'S NAME:	Tony Knight

BORING/WELL NO.	**SMW-15**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	10-24-03
START TIME:	08:00
END TIME:	10:30
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Partly Cloudy
TEMP:	42°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 43.0' (See Boring Log for SMW-15 for Geologic Description).	FLUSH WELL COVER CONCRETE SEAL BENTONITE CHIPS 9 - 50# bags. RISER - 2" dia. PVC (schd. 40). FILTER PACK 9 - 50# bags of #5 sand.

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL) : 728.33'. Top of Casing Elevation (MSL): 727.90'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-15**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 43.0' (See Boring Log for SMW-15 for Geologic Description). *(continued)*	
32								
33							▽	
34								
35								
36								SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.
37								
38								
39								
40								
41								
42								
43								
							43.0' End of boring.	STAINLESS STEEL END CAP

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Mike Swanson
HELPER'S NAME:	Ivan Jimenez

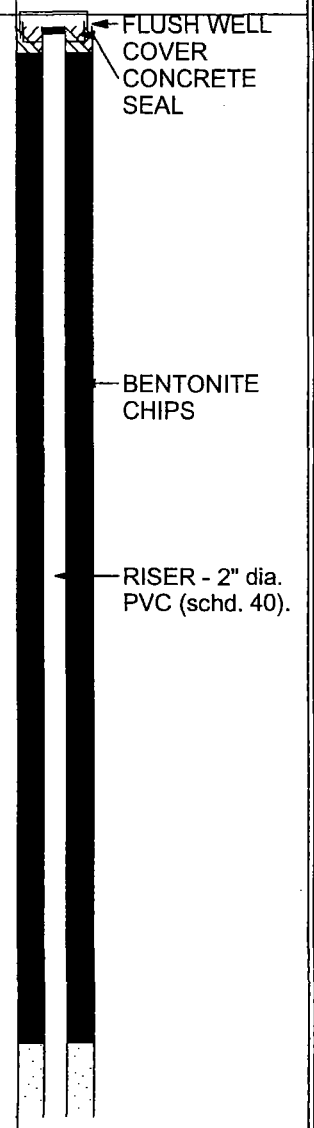
BORING/WELL NO.	**SMW-16A**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-22-04
START TIME:	08:30
END TIME:	12:00
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Clear
TEMP:	28°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG
1				0.0		
2						
3				0.0		
4						
5				0.0		
6						
7				0.0		
8						
9				0.0		
10						
11				0.0		
12						
13				0.0		
14						
15				0.0		
16						
17	RD-SB-SMW16(16-18')-01			0.0		
18						
19				0.0		
20						
21				0.0		
22						
23				0.0		
24						
25				2.1		
26						
27				4.0		
28						
29				4.6		
30						

DESCRIPTION OF MATERIAL

0.0' - 146.0' BLIND DRILL.
(See Boring Log for SMW-16A for Geologic Description.)

WELL DIAGRAM



▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 727.82'. Top of Casing Elevation (MSL): 727.54'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-16A**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31				6.0			0.0' - 146.0' BLIND DRILL. (See Boring Log for SMW-16A for Geologic Description.) *(continued)*	FILTER PACK 6 - 50# bags of #5 sand.
32								
33				4.9			▽	
34								
35				4.2				
36								
37				1.4				SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.
38								
39				1.2				
40								
41				1.9				
42								
43				1.0				
44								
45				0.8				STAINLESS STEEL END CAP
46							46.0' End of boring.	

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Mike Swanson
HELPER'S NAME:	Ivan Jimenez

BORING/WELL NO.	**SMW-17**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-22-04
START TIME:	12:45
END TIME:	16:45
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Partly Cloudy
TEMP:	39°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1				0.0			0.0' - 146.0' BLIND DRILL. (See Boring Log for SMW-17 for Geologic Description.)	FLUSH WELL TOP CONCRETE SEAL
2				0.0				
3				0.0				
4				0.0				
5				0.0				
6				0.0				
7				0.0				
8				0.0				
9				0.0				
10				0.0				
11				0.0				
12				0.0				
13				0.0				
14				0.0				BENTONITE CHIPS 13 - 50# bags.
15	RD-SB-SMW17(14-16')-01			0.0				
16				0.0				
17				0.0				
18				0.0				
19				0.0				
20				0.0				
21				0.0				
22				0.0				
23				0.0				
24				0.0				
25				0.0				
26				0.0				
27	RD-SB-SMW17(26-28')-01			0.0				
28				0.0				
29				0.0				
30				0.0				RISER - 2" dia. PVC (schd. 40).

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 728.01'. Top of Casing Elevation (MSL): 727.72'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-17**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31				0.0			0.0' - 146.0' BLIND DRILL. (See Boring Log for SMW-17 for Geologic Description.) *(continued)*	FILTER PACK 6 - 50# bags of #5 sand.
32								
33				0.5			▽	
34								
35				0.5				
36								
37				2.4				SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.
38								
39				2.4				
40								
41				3.3				
42								
43				0.0				
44								
45				0.0				STAINLESS STEEL END CAP
46							46.0' End of boring.	

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Transhield Underground Services
DRILL RIG:	Dietrich-120
DRILLER'S NAME:	Mike Swanson
HELPER'S NAME:	Ivan Jimenez

BORING/WELL NO.	**SMW-18**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	3-22-04
START TIME:	8:10
END TIME:	12:30
DRILLING METHOD:	Hollow Stem Auger
WEATHER:	Partly Cloudy
TEMP:	35°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 45.0' BLIND DRILL. (See Boring Log for SMW-18 for Geologic Description.)	FLUSH WELL COVER CONCRETE SEAL BENTONITE CHIPS RISER - 2" dia. PVC (schd. 40).

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 727.60'. Top of Casing Elevation (MSL): 727.32'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-18**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 45.0' BLIND DRILL. (See Boring Log for SMW-18 for Geologic Description.) *(continued)*	FILTER PACK 7 - 50# bags of #5 sand.
32								
33								
34								
35								
36								
37								
38								SCREEN - 2" dia. - 0.020" slotted 304 stainless steel.
39								
40								
41								
42								
43								
44								
45							45.0' End of boring.	STAINLESS STEEL END CAP

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Giles Engineering
DRILL RIG:	CME-120
DRILLER'S NAME:	Ryan Fett
HELPER'S NAME:	James McDonald

BORING/WELL NO.	**SMW-19**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-3-04
START TIME:	12:00
END TIME:	14:00
DRILLING METHOD:	HSA
WEATHER:	Cloudy
TEMP:	50°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 42.0' - (See Boring Log for SMW-19 for Geologic Description.)	FLUSH MOUNT COVER CONCRETE SEAL BENTONITE CHIPS 9 - 50# bags. RISER - 2" dia. 304 stainless steel

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 728.71' Top of Casing Elevation (MSL): 728.45'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-19**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 42.0' - (See Boring Log for SMW-19 for Geologic Description.) *(continued)*	FILTER PACK 8 - 50# bags of #5 sand.
32							▽	
33								
34								SCREEN 2" dia. 0.020" slotted 304 stainless steel.
35								
36								
37								
38								
39								
40								
41								
42							42.0' End of boring.	STAINLESS STEEL END CAP

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Giles Engineering
DRILL RIG:	CME-120
DRILLER'S NAME:	Ryan Fett
HELPER'S NAME:	James McDonald

BORING/WELL NO.	**SMW-20**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-3-04
START TIME:	8:00
END TIME:	11:00
DRILLING METHOD:	HSA
WEATHER:	Cloudy
TEMP:	50°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 44.0' - (See Boring Log for SMW-20 for Geologic Description.)	FLUSH MOUNT COVER CONCRETE SEAL; BENTONITE CHIPS 9 - 50# bags.; RISER - 2" dia. 304 stainless steel.

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 728.30' Top of Casing Elevation (MSL): 727.79'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-20**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 44.0' - (See Boring Log for SMW-20 for Geologic Description.) *(continued)*	FILTER PACK 8 - 50# bags of #5 sand.
32							▽	
33								
34								
35								SCREEN 2" dia. 0.020" slotted 304 stainless steel.
36								
37								
38								
39								
40								
41								
42								
43								
44							44.0' End of boring.	STAINLESS STEEL END CAP

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Giles Engineering
DRILL RIG:	CME-120
DRILLER'S NAME:	Ryan Fett
HELPER'S NAME:	James McDonald

BORING/WELL NO.	**SMW-21**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-2-04
START TIME:	12:00
END TIME:	14:00
DRILLING METHOD:	HSA
WEATHER:	Cloudy
TEMP:	50°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 44.0' - (See Boring Log for SMW-21 for Geologic Description.)	FLUSH MOUNT COVER CONCRETE SEAL BENTONITE CHIPS 9 - 50# bags. RISER - 2" dia. 304 stainless steel.

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 727.72' Top of Casing Elevation (MSL): 727.37'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-21**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 44.0' - (See Boring Log for SMW-21 for Geologic Description.) *(continued)*	FILTER PACK 8 - 50# bags of #5 sand.
32							▽	
33								
34								SCREEN 2" dia. 0.020" slotted 304 stainless steel.
35								
36								
37								
38								
39								
40								
41								
42								STAINLESS STEEL END CAP
43								SAND PACK
44							44.0' End of boring.	

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Giles Engineering
DRILL RIG:	CME-120
DRILLER'S NAME:	Ryan Fett
HELPER'S NAME:	James McDonald

BORING/WELL NO.	**SMW-22**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	11-2-04
START TIME:	10:00
END TIME:	12:00
DRILLING METHOD:	HSA
WEATHER:	Cloudy
TEMP:	50°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 44.0' - (See Boring Log for SMW-22 for Geologic Description.)	FLUSH MOUNT COVER CONCRETE SEAL BENTONITE CHIPS 9 - 50# bags. RISER - 2" dia. 304 stainless steel.

▽ Initial water level

CONTINUED NEXT PAGE

Ground Surface Elevation (MSL): 727.34' Top of Casing Elevation (MSL): 726.86'.

SECOR

BORING/WELL LOG

BORING/WELL NO. **SMW-22**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 44.0' - (See Boring Log for SMW-22 for Geologic Description.) *(continued)*	FILTER PACK 8 - 50# bags of #5 sand.
32							▽	
33								
34								SCREEN 2" dia. 0.020" slotted 304 stainless steel.
35								
36								
37								
38								
39								
40								
41								
42								
43								STAINLESS STEEL END CAP
44								
							44.0' End of boring.	

▽ Initial water level

SECOR

BORING/WELL LOG

PROJECT #:	13UN.02072.02.0001
CLIENT:	Hamilton Sundstrand
SITE:	Area 9/10 - Southeast Rockford
ADDRESS:	Area 9/10
CITY, STATE:	Rockford, Illinois
DRILLING CO.:	Giles Engineering
DRILL RIG:	CME-120
DRILLER'S NAME:	Ryan Fett
HELPER'S NAME:	James McDonald

BORING/WELL NO.	**RW-3R**
LOGGED BY:	C. Armes
CHECKED BY:	K. Wilcoxson
BORING DATE:	12-2-04
START TIME:	08:00
END TIME:	15:00
DRILLING METHOD:	HSA
WEATHER:	Cloudy
TEMP:	35°F

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
1–30							0.0' - 46.0' BLIND DRILL	WELL VAULT; CONCRETE SEAL; BENTONITE CHIPS; RISER - 4" dia. 304 stainless steel.

▽ Initial water level

CONTINUED NEXT PAGE

SECOR

BORING/WELL LOG

BORING/WELL NO. **RW-3R**

PROJECT #: 13UN.02072.02.0001

DEPTH/FEET	SAMPLE NAME	BLOW COUNTS	RECOVERY/IN	PID/HEADSPACE	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION OF MATERIAL	WELL DIAGRAM
31							0.0' - 46.0' BLIND DRILL *(continued)*	FILTER PACK - #5 Sand.
32							▽	
33								
34								
35								SCREEN - 4" dia. - 0.020 " slotted 304 stainless steel.
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46							46.0' End of boring.	STAINLESS STEEL END CAP

▽ Initial water level

APPENDIX E

Geophysical Survey Report

GZA GeoEnvironmental, Inc.

March 9, 2004

GEOPHYSICAL SURVEY
SE ROCKFORD SUPERFUND SITE
ROCKFORD, ILLINOIS

PREPARED FOR:
SECOR International, Inc.
446 Eisenhower Lane North
Lombard, IL 60148

PREPARED BY:
GZA GeoEnvironmental, Inc.
6157 28th Street SE, Suite 19
Grand Rapids, MI 49546

March 9, 2004
File No. 61374.00

GZA
GeoEnvironmental, Inc.

Engineers and Scientists

March 9, 2004
File No. 61374.00

Mr. David Curnock
SECOR International, Inc.
446 Eisenhower Lane North
Lombard, IL 60148

Re: Geophysical Survey
SE Rockford Superfund Site
Rockford, Illinois

6157 28th Street SE
Suite 19
Grand Rapids
Michigan 49546
616-956-6123
FAX 616-956-6171
http://www.gza.net

Dear Mr. Curnock:

In accordance with our Proposal for Services, File No. 16.P000042.04, GZA GeoEnvironmental, Inc. (GZA) has completed the Geophysical Survey ("Survey") at the above referenced site located near the southeast corner of 9th Street and 23rd Street, Rockford, Illinois (Site). Presented below is a summary of the field procedures and results of the Survey.

INTRODUCTION

The Survey was completed in a parking lot located east of 9th Street and south of 23rd Street in a historically industrial area on February 4, 2004. The Survey consisted of electromagnetic (EM) and ground penetrating radar (GPR) methods and was completed using a Geonics EM-31 MK2 Terrain Conductivity Meter and a Geophysical Survey Systems, Inc. (GSSI) SIR-2000 GPR system with a 400 MHz antenna to evaluate the shallow subsurface features to a maximum attainable depth of approximately 18 feet and 9 feet, respectively.

PURPOSE

The purpose of the proposed Survey was to attempt to identify the presence of USTs, utilities, or other general subsurface objects that may exist within the proposed survey area at the Site. The procedures used during the GPR Survey are outlined below.

METHODOLOGY

The extent of the Survey, selected by SECOR International, Inc. ("Client"), measured 150 feet by 150 feet. EM and GPR profile lines were conducted in both east/west and north/south orientations at 10-foot intervals throughout the survey area, as specified by Client. Fiducial marks were inserted into the EM and GPR survey data files at 10-foot spacings to assist in identification and location of any anomalous features. Profile line numbers, and associated coordinates correspond to the GPR Survey's origin point (0E,0N), shown on Figure No.1. The origin point was located approximately 10 feet east of 9th Street and 150 feet south of a chain link fence, which was the

northern border of the Survey.

RESULTS

Three anomalies were detected within the selected Survey area during the EM portion of the Survey (refer to Figure Nos. 2 and 3). Figure Nos. 2 and 3 show contour maps generated using the in-phase, or metal response, component of the electromagnetic data. The locations, presented in coordinates relative to the Survey area, are provided in the table below. Each of the three anomalies appears to be individual, non-continuous objects composed of magnetic metal. None of the three anomalies display the typical dipole signature commonly associated with USTs (one positive end and one negative end). However, the size and magnitude of these anomalies warrants further evaluation.

Name	Coordinates	Approximate Length (feet)	Approximate Width (feet)	Approximate Depth (feet)[1]
Anomaly 1	12E,130N	3	3	1.6 to 3.2
Anomaly 2	31E,107N to 28E,138N	31	7	0.8
Anomaly 3	79E,20N	4	3	3.25

1. Depth estimates are based on GPR data records collected near the anomalies.

The results of the GPR portion of the Survey support the presence and locations of Anomalies 1 through 3, as shown on Figure Nos. 4 through 6. Anomaly 1 appears as a medium-sized hyperbola in an area of disturbed soils on Figure Nos. 4a and 4b. The depth to the top of Anomaly 1 is approximately 2 feet below ground surface (bgs). The nature of Anomaly 2 varies from that of Anomalies 1 and 3. Anomaly 2 appears to be a somewhat laterally extensive, shallow feature. There are no discernable objects (i.e. hyperbolas etc.) within the lateral extent of Anomaly 2, but the overall length of the anomaly suggests that the signature resulted from a flat reflector such as scrap sheet metal or some localized change in fill material such as slag, which is commonly magnetic. Anomaly 3 is located approximately 3.25 feet bgs and appears to be an isolated object. While Anomaly 3 does display a hyperbolic signature, the hyperbola does not appear to be broad enough or symmetrical enough to represent an UST.

In addition to supporting the location and presence of Anomalies 1 through 3, the GPR data records indicated the presence of several other small anomalies within the Survey area. These anomalies were not considered to be as significant as Anomalies 1 through 3, and may simply represent the presence of miscellaneous cultural objects buried over time. The approximate locations of these anomalies are shown on Figure No. 1.

LIMITATIONS

The EM and GPR Survey was performed in accordance with generally accepted practices of other consultants undertaking similar projects. GZA's interpretations must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the data acquired during the EM and GPR Survey. No other warranty, expressed or implied, is made. Specifically, GZA does not, and cannot, represent that the anomalies present at the Site are limited to the number, size, area and source estimations identified in this Report.

SUMMARY

GZA has completed an EM and GPR Survey in the Client designated area at the SE Rockford Superfund Site. The results of the Survey indicate the presence of three anomalies of concern. Both EM and GPR data records identified each anomaly. None of these three anomalies display the signature commonly associated with USTs, but the relative size and magnitude of the anomalies warrants further evaluation.

GZA appreciates the opportunity to be of service to you. Should you have any questions or require additional information, please contact the undersigned at (616)-956-6123.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Matthew A. Vander Eide
Assistant Project Manager/Geophysicist

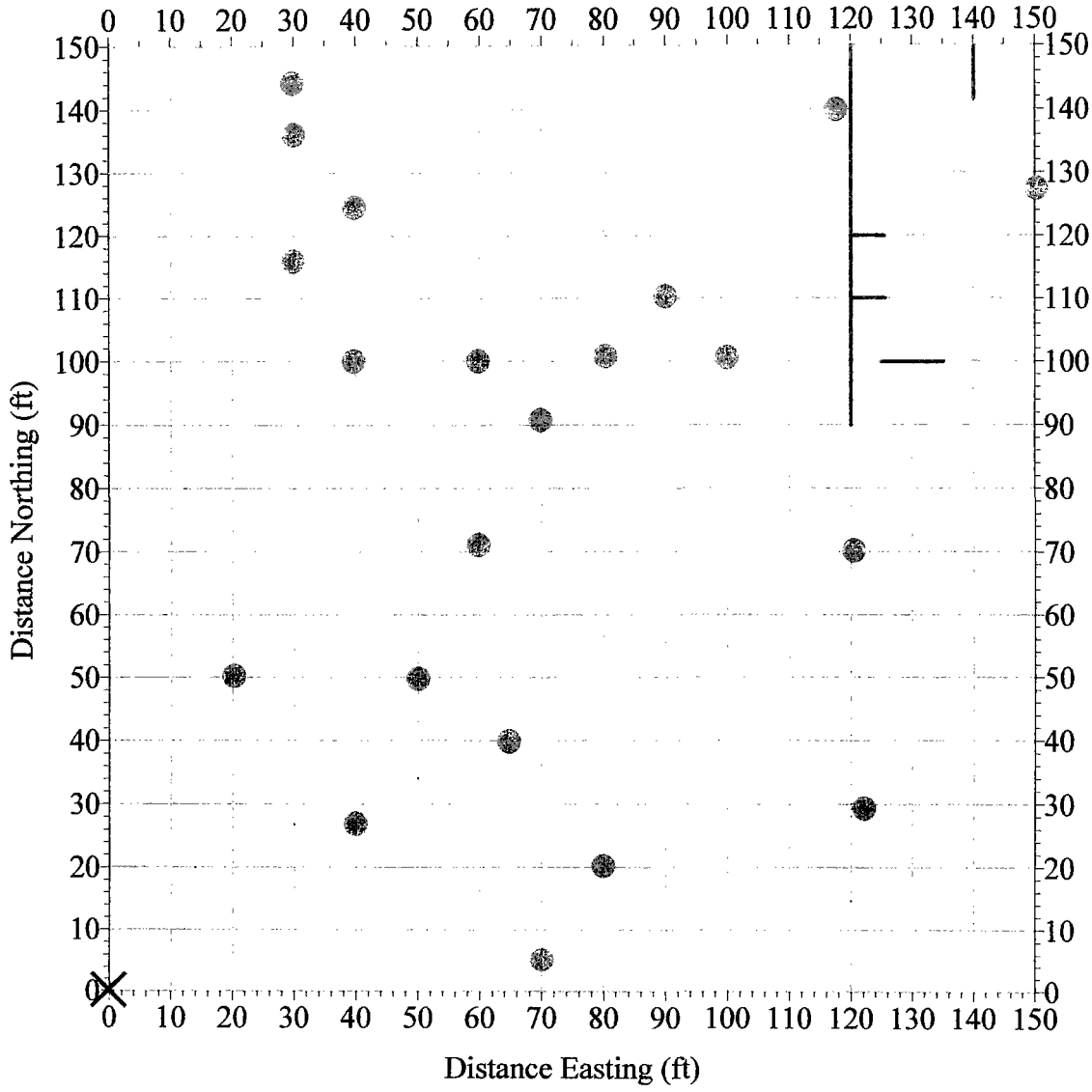
Walter Kosinski, P.E.
Principal and District Manager

Attachments: Figure No. 1 – EM and GPR Survey Profile Lines
Figure No. 2 – Electromagnetic Survey Results...East/West Profile Lines
Figure No. 3 – Electromagnetic Survey Results...North/South Profile Lines
Figure No. 4a – GPR Profile Line 130N
Figure No. 4b – GPR Profile Line 10E
Figure No. 5 – GPR Profile Line 30E
Figure No. 6 – GPR Profile Line 80E

GZA

FIGURES

EM and GPR Survey Profile Lines
SE Rockford Superfund Site
Rockford, Illinois
February 4, 2004



← 9th Street (approximately 10 west of survey area)

LEGEND

× Survey Origin (0E, 0N)

Hyperbola Noted on GPR Record

Geophysical Survey Profile Line

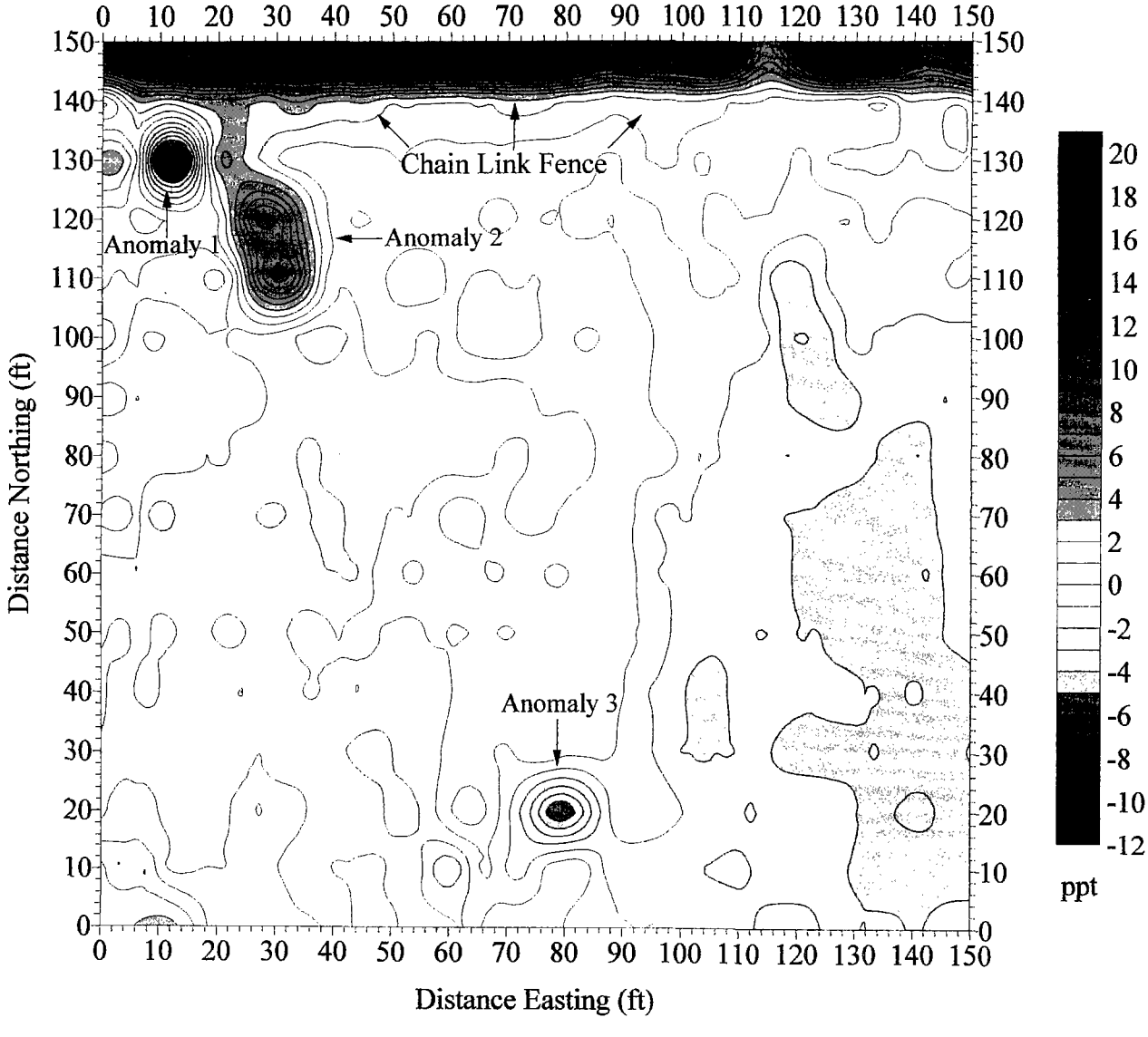
—— Area Inaccessible to GPR Equipment

N
W E
S

SCALE
1 inch = 30 feet

Figure No. 1

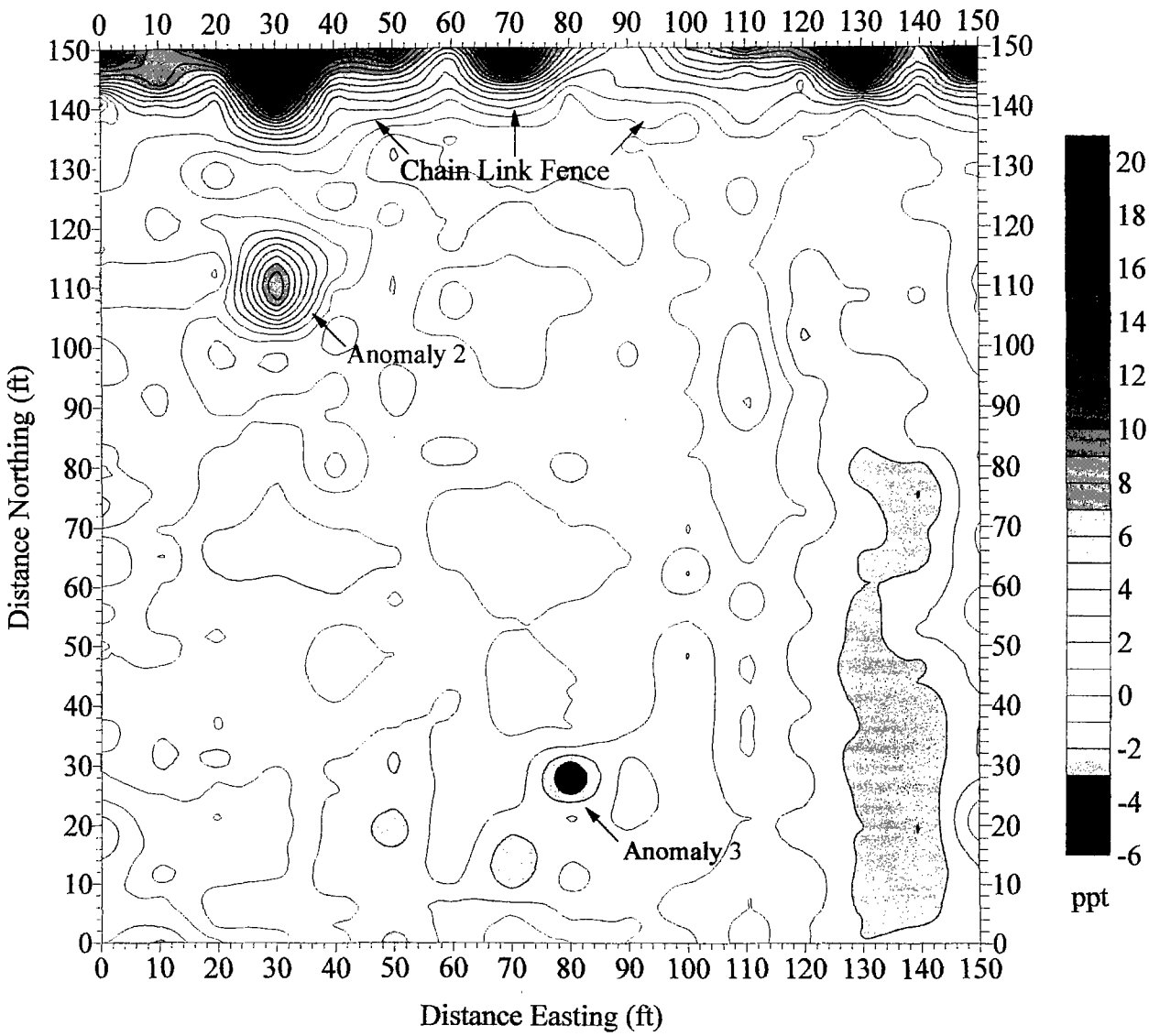
Electromagnetic Survey Results
In-Phase Component (ppt)
East/West Profile Lines
SE Rockford Superfund Site
Rockford, Illinois
February 4, 2004



SCALE
1 inch = 30 feet

Figure No. 2

Electromagnetic Survey Results
In-Phase Component (ppt)
North/South Profile Lines
SE Rockford Superfund Site
Rockford, Illinois
February 4, 2004



SCALE
1 inch = 30 feet

Figure No. 3

GPR Profile Line 130N
SE Rockford Superfund Site
Rockford Illinois
February 4, 2004

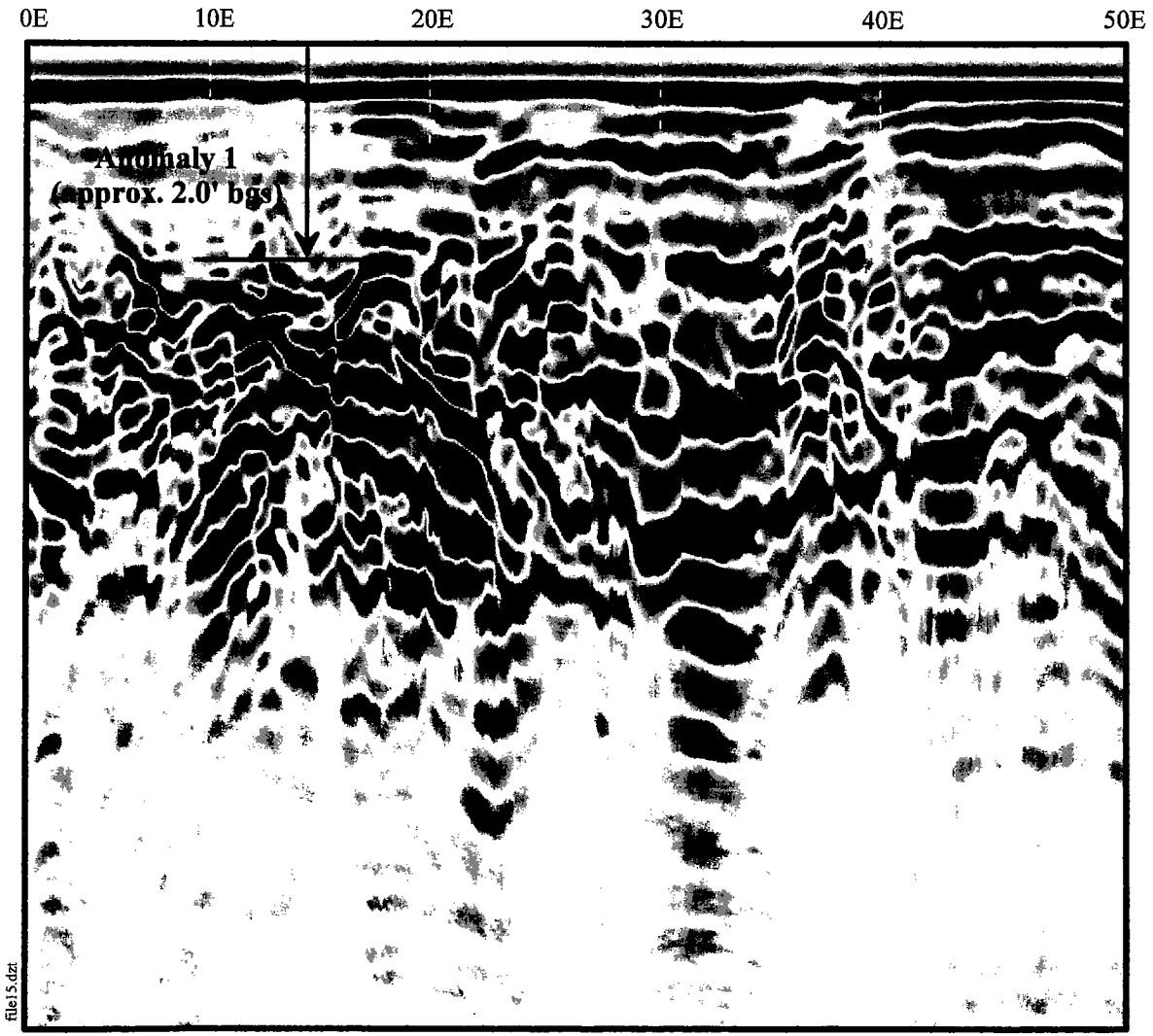
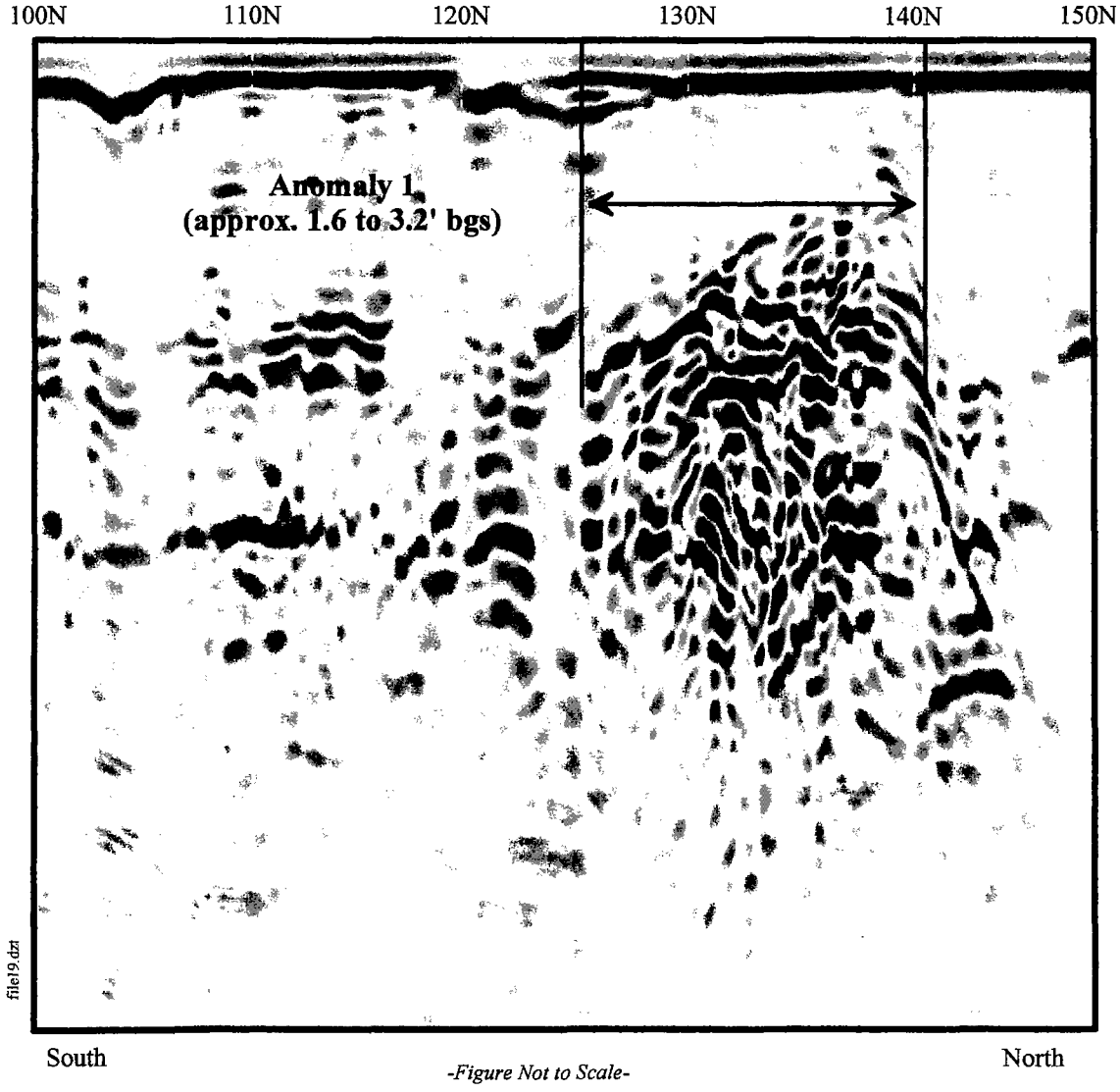


Figure No. 4a

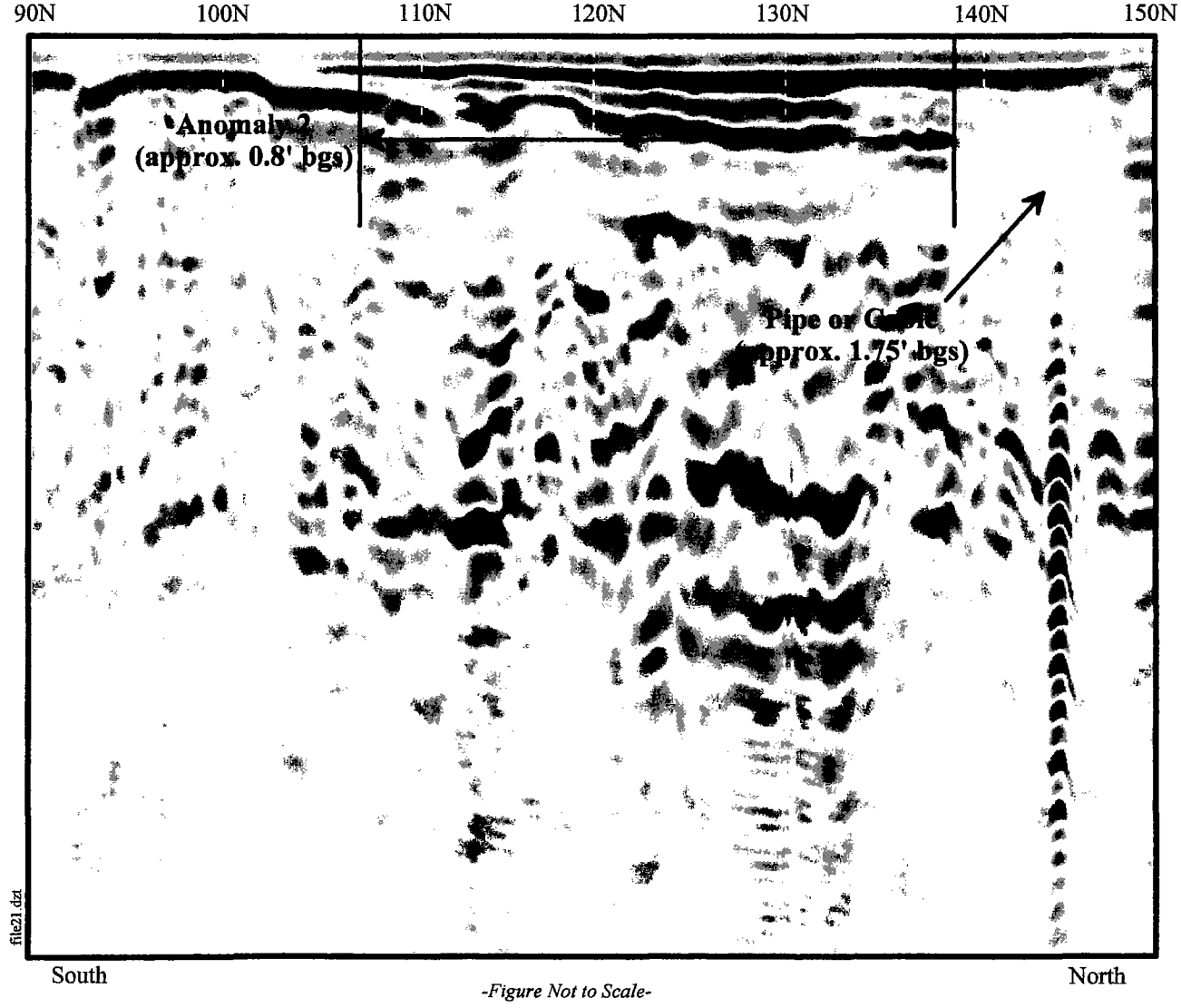
GPR Profile Line 10E
SE Rockford Superfund Site
Rockford Illinois
February 4, 2004



-Figure Not to Scale-

Figure No. 4b

GPR Profile Line 30E
SE Rockford Superfund Site
Rockford Illinois
February 4, 2004



-Figure Not to Scale-

Figure No. 5

GPR Profile Line 80E
SE Rockford Superfund Site
Rockford Illinois
February 4, 2004

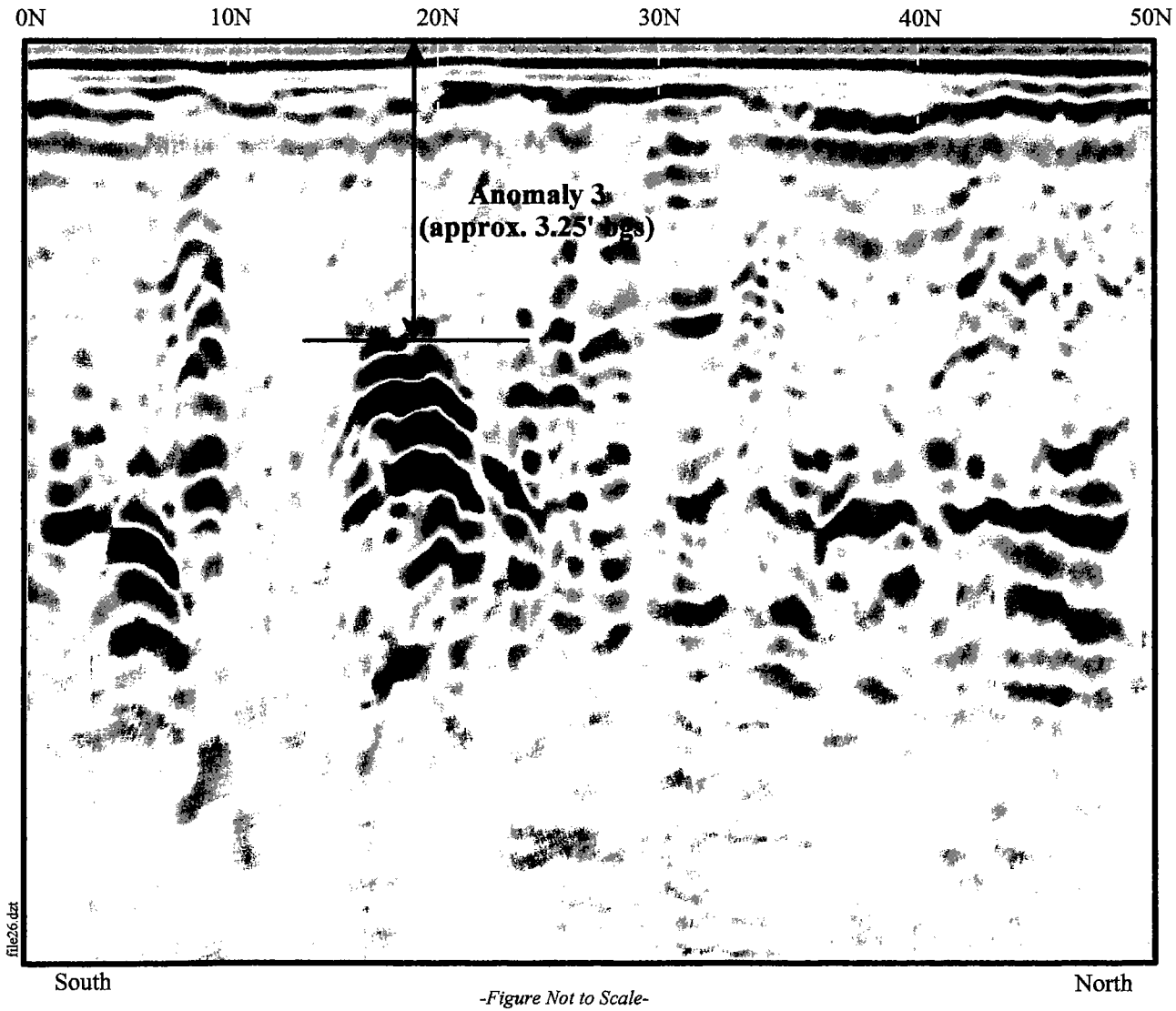


Figure No. 6

GZA
GeoEnvironmental, Inc.

Geophysical Survey Notes

Survey Date: 2/4/04 **File Number:** 61374.00 **Personnel:** MAV

Client Name: SECOR **Equipment:** GSSI SIR-2000 w/400 MHz antenna

Site Location: Rockford, IL

Line Number	Start Position	End Position	Line Direction	File Number	Field Notes/Comments
0N	0E	150E	E	2	
10N	150E	0E	W	3	
20N	0E	150E	E	4	
30N	0E	150E	E	5	
40N	150E	0E	W	6	
50N	0E	150E	E	7	
60N	150E	0E	W	8	
70N	0E	150E	E	9	
80N	150E	0E	W	10	
90N	0E	150E	E	11	
100N	150E	0E	W	12	skipped 125N-135N due to snow (no data)
110N	0E	150E	E	13	skipped 120N-125N due to snow (no data)
					data didn't stop at 150E, 140E is last mark
120N	150E	0E	W	14	skipped 120N-125N due to snow (no data)
130N	0E	150E	E	15	
140N	150E	0E	W	16	
150N	0E	150E	E	17	

GZA
GeoEnvironmental, Inc.

Geophysical Survey Notes

Survey Date: 2/4/04 **File Number:** 61374.00 **Personnel:** MAV

Client Name: SECOR **Equipment:** GSSI SIR-2000 w/400 MHz antenna

Site Location: Rockford, IL

Line Number	Start Position	End Position	Line Direction	File Number	Field Notes/Comments
0E	0N	150N	N	18	
10E	150N	0N	S	19	
20E	0N	150N	N	20	
30E	150N	0N	S	21	
40E	0N	150N	N	22	
50E	150N	0N	S	23	
60E	0N	150N	N	24	
70E	150N	0N	S	25	
80E	0N	150N	N	26	
90E	150N	0N	S	27	
100E	0N	150N	N	28	
110E	150N	0N	S	29	
120E	0N	90N	N	30	
130E	150N	0N	S	31	
140E	0N	142N	N	32	2 extra marks (errors) between 50N and 60N
150E	150N	0N	S	33	

APPENDIX F

Laboratory Analytical Reports

STL - Chicago, University Park, Illinois

APPENDIX F

SECOR

Laboratory Analytical Reports

Southeast Rockford Groundwater Contamination Superfund Site
Rockford, Illinois

STL SOIL LABORATORY RESULTS	BORING LOCATIONS
221687	SMW-1,SMW-2, SMW-4,SMW-5, SMW-15
221823	S5
221824	S4
221825	S1
221826	S3
221827	S2
221831	S9, S11, S12, S13, S14, SMW-18
221906	S6
221911	S7
221908	S8
222131	SMW-14, SMW-12
222279	S10, S9
224821	SMW-16, SMW-18, SMW-10
224881	SMW-6, S15, SMW-17
225257	SMW-16A, SMW-17
231689	SMW-19 through SMW-22
STL GROUNDWATER LABORATORY RESULTS	**MONITORING WELL LOCATIONS**
	APRIL 2004 - ROUND 01
226233	SMW-1, SMW-2, SMW-3, SMW-4, SMW-6, MW-7FGA, SMW-8, SMW-9, SMW-10, SMW-13, SMW-14, SMW-15, SMW-16,SMW-17, SMW-18, MW-3FGA, MW127
226234	SW7, MW201, MW202, MW203, SMW5, SMW-11, SMW-12
	NOVEMBER 2004 - ROUND 02
232105	SMW-1 through SMW-22*, MW3FGA, MW7FGA, MW127
232134	MW201, MW202, MW203
STL IDW LABORATORY RESULTS	**INVESTIGATION DERIVED WASTE (IDW)**
22280	OSA-IDW-SOIL, OSA-IDW-WATER, IDW-SOIL, IDW-WATER
232660	IDWRW3

SDG - Sample delivery group

* Samples SMW-19 through SMW-22 - Round 01

APPENDIX G

Laboratory Data Verification Report

Legend Technical Services, Inc.

August 25, 2005

L E G E N D
Technical Services, Inc.
www.legend-group.com

775 Vandalia Street
St. Paul, MN 55114
Tel: 651.642.1150
Fax: 651.642.1239

August 25, 2005

SECOR
Attn: Mr. Dave Curnock
446 Eisenhower Lane North
Lombard, IL 60148

RE: Project SE Rockford Area 9/10 Data Verification

1.0 SUBJECT

This report presents the results of a data verification performed by Legend Technical Services, Inc, in 2005 for the SE Rockford Area 9/10 data generated by STL Laboratories located in Chicago and Knoxville.

2.0 SCOPE

The scope of the work was limited to review of the following:

- Submitted reports for comparison to the Chain of Custody documents
- Review of the Case Narratives for data usability on 10% of the samples reviewed or one per job number (report)
- Review of the QC data as it may impact the sample selected for verification.

This review does not cover data usability that may have impacted samples that were not reviewed in the project file or validation of any reported values, as raw data was not supplied.

The review does not include any feedback or corrective action taken by the Laboratory involved in generating the data.

The job numbers reviewed, associated client sample ID, and laboratory sample ID are listed in Table 1.

Conclusions that have been made regarding the usability of the data are the opinion of the data reviewer based on the information provided.

3.0 RECEIVING DOCUMENTS

Job # 221823 - The sampling times listed on the Sample Information page were inconsistent with the times listed on the Chain of Custody (COC) form for samples #5, #6, #7 and #8.

Job #221824 - The cooler custody seal number was not noted on the COC form and the form indicated that a custody seal was present.

Job #231689 - The COC indicated that "Package Seal No" was checked while a custody seal number was listed on the COC.

Job # 232576 - The COC indicates that the sample matrix is "S", however the report Sample Information page indicates "water".

Job #226234 - The client ID for laboratory sample # 226234-1 on the COC is listed as "RD-GW-SMW7-01" and the report sample information page and all resulting data lists the client ID for this sample as "RD-GW-SW7-01".

Job # 226233 - The client ID for laboratory sample # 226233-2 on the COC is listed as "RD-GW-MW7FGA-01" and the report sample information page and all resulting data lists the client ID for this sample as "RD-GW-SMW7FGA-01".

Job # 221906 - The COC lists the time received by the laboratory as 1430 and the report sample information page states the samples were received at 1700.

Job #221831 - The date sample listed on the COC states the samples were taken on 9/27/03 and received on 10/29/03, which would put the analyses past the recommended holding time. The report sample information page indicates that the samples were taken on 10/27/03. No notations were made by the laboratory on the COC to indicate an error by the sampler.

Job # 221911 - The COC lists the time received by the laboratory as 1430 and the report sample information page states the samples were received at 1700.

Job # 221908 - The COC lists the time received by the laboratory as 1430 and the report sample information page states the samples were received at 1700.

The COC states different sampling times for samples #1-10, #12, #13, #18 and #19 than the report sample information page.
The items listed above would have minimal data impact on the results reported.

4.0 CASE NARRATIVES

Job # 221823-4, (RD-SB-S5(8-10)-01) VOC sample narrated that two internal standards were outside acceptance criteria. One compound was run at a dilution with acceptable internal standard (tetrachloroethylene), however the other associated compounds detected or not were not reported on the acceptable run nor qualified for the data user to determine usability.

Job # 221824 - Typographical error in the case narrative for the sentence "All MSD and MSD recoveries..". There is no data impact.
No case narrative information was included for the VOC analysis. No determination of data usability could be made.

Job # 222131 - Typographical error in the case narrative for the VOCs states "The samples were properly prepared and analysis within recommended". There is no data impact.

Job # 226233 - Typographical error in the case narrative for the VOCs states "The samples were properly prepared and analysis within recommended". There is no data impact.

Job # 221687 - Case narratives for all of the analyses were missing from the report. No determination of data usability could be made.

Job # 221831 - - Typographical error in the case narrative for the VOCs states "The samples were properly prepared and analysis within recommended". There is no data impact.

Typographical error in the case narrative for the JP-4 analysis in Item #7 which states "The matrix spike duplicate and the matrix spike duplicate..". There is no data impact.

Job # 221911 - Case narratives for all of the analyses were missing from the report. No determination of data usability could be made.

Job # 221824 - Typographical error in the case narrative for the JP-4 analysis in Item #7 which states "The matrix spike duplicate and the matrix spike duplicate..". There is no data impact.

5.0 HOLDING TIMES

All of the analyses were performed initially within the recommended holding times. Where re-extracts and dilutions were performed outside of the holding times, this information was present in the associated case narratives. The individual results should have also been flagged on the data tables.

Job # 231689 - The JP-4 samples were re-extracted past the recommended holding times due to poor recovery for the LCS/LCSD pair in the first extraction. Reported results for this analysis may be biased low.

6.0 METHOD BLANKS

Job # 221687 - Acetone was present in the VOC method blank above the reporting limit. Reported results for acetone may be biased high for sample RD-SB-SMW2(9-11)-01.

Several metals were flagged with a B due to concentrations present between the contractual required detection limit (CRDL/RL) and reporting limit and the laboratory method detection limit (MDL/IDL) and instrument detection limit.

Job # 221825 RD-SB-S1 (10-12)-01 for barium
Job # 221823 RD-SB-S5(8-10)-01 for barium
Job # 221824 RD-SB-S4(8-10)-01 for arsenic and barium
Job # 221823 RD-SB-S3(20-22)-01 for barium
Job # 221906 RD-SB-S6(0-2)-01 for barium

7.0 LCS/LCSD RESULTS

The QAPP indicates that the %RPD limit for the LCS/LCSD pair is 20% for JP-4 soil and water samples. The following reports list the %RPD as 30%:

Job # 221823
Job # 224821
Job # 225257
Job # 231689
Job # 221906
Job # 222279
Job # 221831
Job # 221911
Job # 221908

Job # 232134 only an LCS sample was performed with the extraction batch. No LCSD sample was performed and no precision data was available. MS/MSD samples were not prepared with this sample set either.

Job # 221906 - The LCS recovery for JP-4 was below laboratory limits. Recoveries for the MS/MSD were also below laboratory limits. All JP-4 results may be biased low. The finding should have been in the case narrative and the resulting JP-4 results should have been flagged or re-extracted.

8.0 MS/MSD RESULTS

Job # 221825 - No MS/MSD pair was prepared with the VOC sample set.
Job # 221826 - No MS/MSD pair was prepared with the VOC sample set.
Job # 224881 - No MS/MSD pair was prepared with the VOC sample set.
No MS/MSD pair was prepared with the JP-4 sample set.
Job # 225257 - No MS/MSD pair was prepared with the VOC sample set.
Job # 232134 - No MS/MSD pair was prepared with the VOC sample set.
No MS/MSD pair was prepared with the JP-4 sample set.
Job # 232576 - No MS/MSD pair was prepared with the VOC sample set.
Job # 226234 - No MS/MSD pair was prepared with the VOC sample set.
No MS/MSD pair not prepared with the JP-4 SDG, therefore no QC data was reported for this.
Job # 222131 - No MS/MSD pair was prepared with the VOC sample set.
No MS/MSD pair not prepared with the JP-4 SDG, therefore no QC data was reported for this.
Job # 221906 - No MS/MSD pair was prepared with the VOC sample set.
Job # 221687 - No MS/MSD pair was prepared with the VOC sample set.
Job # 222279 - No MS/MSD pair was prepared with the VOC sample set.
Job # 224821 - Several MS and/or MSD compounds were outside of QC limits for 224821-6 (RD-SB-SMW18(24-15)-01). Reported results for the following compounds should have been qualified as biased low for this sample:

Chloroform
1,1,1-Trichloroethane
Carbon tetrachloride
Total 1,2-Dichloroethylene
Benzene
1,2-Dichloroethane
Trichloroethylene
1,2-Dichloroproane
Bromodichloromethane
Cis and trans-1,3-dichloropropane
Toluene
1,1,2-Trichloroethane
Tetrachloroethylene
Chlorobenzene
Ethyl benzene
Styrene
Xylenes

Job #221908- Several MS and/or MSD compounds were outside of QC limits for 221908-8 (RD-SB-S8(14-16)-01). Reported results for the following compounds should have been qualified as biased low for this sample:

Trichloroethylene
Cis-1,3-dichloropropane
Toluene
Tetrachloroethylene
Chlorobenzene
Ethyl benzene
Styrene
Bromoform
Xylenes

Job # 221831-MS/MSD recoveries for JP-4 in sample RD-SB-S13(24-26)-01 (221831-8) were below laboratory limits. Reported JP-4 results for this sample should have been qualified as biased low for this sample.

Sample RD-SB-S13(24-26)-01 had 4 internal standard recoveries outside of laboratory acceptance limits. Reported results for compounds associated with these internal standards in this sample may be biased. Insufficient information was available to determine the extent of the bias.

9.0 AIR SAMPLES

Air samples were taken in Tedlar bags and transferred to Summa canisters by the laboratory within 72 hours of sampling.

All reported VOC air results may be biased low due to losses that may have occurred during bag storage and the transfer process. Reported results with low concentrations would have a greater bias than results with high concentrations.

Job #H3K190107- Lab IDs were not recorded on the chain of custody. There is no data impact.

Job #H3L120106-Lab Lot # and lab ids were not recorded on the chain of custody. There is no data impact.

Job #H33L110108-CCV %RSD exceeded 30% for 1,2,4-trichlorobenzene. Not enough information to assess data impact.

10.0 CONCULSION

All data reviewed should be usable with the exceptions noted above.

LEGEND TECHNICAL SERVICES INC

Chris Bremer
Laboratory Director

Terri Olson
QA/QC Coordinator

TABLE #1
Job Number/Report Date/Client ID/Laboratory ID Cross Reference

Job Number	Report Date	Client ID	Laboratory ID
221827	11/24/03	RD-SB-S2(8-10)-01	221827-4
221825	11/20/03	RD-SB-S1(10-12)-01	221825-5
221823	11/21/03	RD-SB0S5(8-10)-01	221823-4
221824	11/21/03	RD-SB-S4(8-10)-01	221824-5
221908	11/24/03	RD-SB-S8(14-16)-01	221-08-8
221826	11/24/03	RD-SB-S3(20-22)-01	221826-12
H3K190107	12/1903	PT-SGVE02-04	H3K190107-03
221831	11/24/03	RD-SB-S13(24-26)-01	221831-8
221906	11/24/03	RD-SB-S6(0-2)-01	221906-1
222279	11/26/03	RD-SB-S10(10-11)-01	222279-1
221687	12/02/03	RD-SB-SMW2(9-11)-01	221687-1
221911	12/02/03	RD-SB-S7(2-4)-01	221911-1
H3K180189	12/19/03	PT-SGVE01-01	H3K180189-001
222966	12/29/03	PT-GWAS2-01	222966-2
223047	12/30/03	OT-GWASDMZ-05	223047-4
H3L100112	01/08/04	PT-ASDM3-01	H3L100112-001
H3L110108	01/08/04	PT-SGASDM1-03	H3L110108-001
H3L120106	01/08/04	PT-SGVE2-05	H3L120106
222131	02/13/04	RD-SB-SMW12(2-3)-01	222131-3
224821	03/19/04	RD-SB-SMW18(24-25)-01	224821-6
224881	03/26/04	RD-SB-S15(10-12)-01	224881-03
225257	04/06/04	RD-SB-SMW16A(16-18)-01	225257-1
226234	05/12/04	RD-GW-SMW7-01	226234-1
226233	05/12/04	RD-GW-SMW9-01	226233-3
231689	05/25/04	SMW19(28-30)-01	231689-1
232105	12/03/04	RD-GW-SMW20-01	232105-11
232134	12/03/04	RD-GW-MW201-02	232134-1
232660	12/27/04	RD-IDWRW3-L01	232660-1
232576	12/20/04	Drum Sample	232576-1